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New York City Department of Education/ Office of Library Services

New York City School Library System

# Information Fluency Continuum

Benchmark Skills for Grades K-12

Assessments

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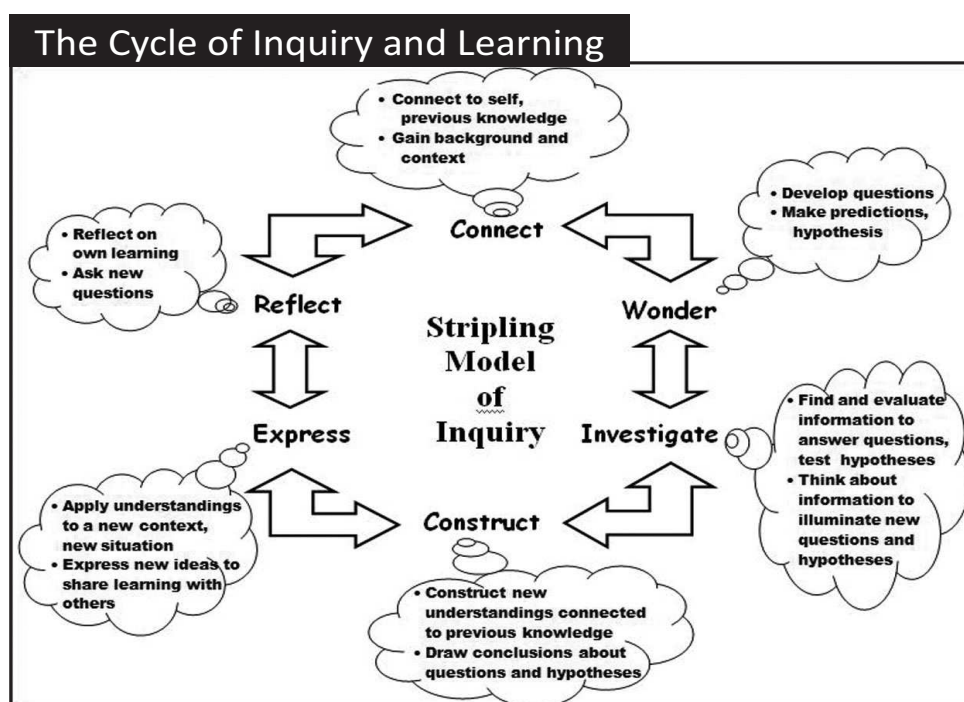
## Introduction

### Information Fluency Continuum, Benchmark Skills, Assessments

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Inquiry is a fundamental building block of teaching and learning that empowers students to follow their sense of wonder into new discoveries and insights about the way the world works. The empowered learner calls upon information/inquiry skills to connect with what he or she knows, ask intriguing questions about what is not known, investigate the answers, construct new understandings, and communicate to share those understandings with others.

Students need to use the skills of inquiry to learn. The Cycle of Inquiry and Learning provides a framework for active learning and the formation of new understandings.



The information and inquiry skills required for in-depth learning must follow a coherent development spiral of instruction and practice throughout the years of schooling, K–12 and beyond, to enable all of our children to become independent learners.

A collaborative approach by the librarian and the classroom teacher is the most effective way to teach information fluency/inquiry skills and strategies. This guide contains a series of documents that define the information literacy and inquiry skills that are important for all students to learn.

## The documents in this guide include:

**TAB 1: Information Fluency Continuum** – This K-12 document identifies three information literacy standards, indicators for each standard, and the skills that students should develop by Grades 2, 5, 8, and 12.

**TAB 2: Information Fluency Continuum Benchmark Skills** – These documents lay out the skills that are benchmarks for the development of information fluency at each grade level, K-12. These charts, organized by K-2, 3-5, 6-8, and 9-12, are intended to give a coherent picture of information skill development in lower elementary, upper elementary, middle, and high school. Highlighted in bold are the Priority Benchmark Skills which have been pulled into a separate document described below.

**TAB 3: Grade-by-Grade Information Fluency Benchmark Skills** – These documents, one each for kindergarten through twelfth grade, are the Information Fluency Benchmark Skills from the previous grade-span documents that have been separated into each grade level. These documents will be most helpful for specific grade-level planning by librarians and classroom teachers.

**TAB 4: Information Fluency Continuum: K-12 Priority Benchmark Skills Brochure** – The information skills that are essential building blocks in students' path to becoming information literate have been identified as Priority Benchmark Skills. This brochure is designed to be pulled out for easy access to the K-12 continuum of Priority Information Fluency Benchmark Skills – to help teachers, librarians, and parents see the expected development over the years of schooling.

**TAB 5: Information Fluency Continuum: Priority Benchmark Skills and Assessments** – This section features the priority benchmarks for each grade level with template assessments for each priority skill. The assessments can be adopted or adapted for use by teachers and librarians who are teaching these essential information skills.

**TAB 6: REACTS Taxonomy** – This taxonomy offers a variety of authentic products at multiple levels of thought for students to create in response to their inquiry investigations. The verbs and sample products at each level may be used by teachers and librarians to plan project assignments that engage and motivate students to share their learning in creative ways.





# Information Fluency Continuum

This K-12 document identifies three information literacy standards, indicators for each standard, and the skills that students should develop by Grades 2, 5, 8, and 12.

# New York City School Library System

## INFORMATION FLUENCY CONTINUUM

A substantial body of research has emerged in the last 15 years that demonstrates an important and positive relationship between the presence of a good school library and increased student achievement.

- Effective libraries enable students to explore content deeply, pursue their own academic interests, and engage in inquiry—all of which support the development of high-level literacy skills.
- Effective libraries surround students with high-quality, engaging resources, and technology that spark independent learning.
- Effective libraries also serve a unique function in a school as a “public forum for learning” where students can connect to each other and present their work.
- Librarians play a key role in integrating independent learning skills throughout the curriculum by teaching research, inquiry, and technology skills to students and by providing professional development for teachers.

The attached document provides a framework for the instructional aspects of a library program. The framework is based on three standards that form the basis for the skills and strategies essential for students to become independent readers and learners:

- **Standard 1: Using Inquiry to Build Understanding and Create New Knowledge**
- **Standard 2: Pursuing Personal and Aesthetic Growth**
- **Standard 3: Demonstrating Social Responsibility**

This document is called an “Information Fluency Continuum” for very specific reasons. Our young people must go beyond being able to decode information to being able to use appropriate information in any situation; they must be “information fluent” in order to thrive both in and out of school. In addition, like literacy, information fluency must extend in a coherent development continuum throughout the years of schooling, K–12 and beyond.

Information fluency skills and strategies are an integral part of learning in any subject area. They can be most effectively taught by the librarian in collaboration with the classroom teacher, so that students are using these skills to learn essential content. Some of the skills may be incorporated into classroom instruction; others will be most effectively taught in the library setting. Wherever they are taught, these information fluency skills are pivotal in helping all of our children become independent learners.

In the fall of 2010, this Continuum was revised to align with the new AASL national standards, *Standards for the 21st -Century Learner*.

# How To Use THE CONTINUUM

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## **If you are an administrator:**

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- Use the Continuum as a starting point for professional development planning to help all of your teachers become comfortable with integrating information skills into their instructional design.
- Be sure that students have opportunities for inquiry, personal exploration, and independent reading by facilitating open access and flexible scheduling of your library.
- Lead your school through a process of defining the most important skills and strategies for each grade level you serve. Set high expectations for students' information fluency.

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## **If you are a classroom teacher:**

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- Collaborate with the librarian and other classroom teachers to decide the most important skills to be taught in each grade or subject.
- Design instructional units in collaboration with the librarian that integrate the teaching and application of essential information fluency skills.
- Include the assessment of information fluency skills in all rubrics.
- Actively incorporate student use of multiple resources and technology whenever possible.
- Develop a collaborative relationship with your librarian, so that you both are teaching information fluency skills and all students experience a consistent set of expectations in their use of information.

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## **If you are a librarian or library teacher:**

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- Assume a leadership role in your school in collaborative planning that integrates the teaching of information fluency throughout the curriculum.
- Figure out which skills to teach and which to scaffold in every lesson.
- Plan the implementation of the Continuum so that all students develop the essential skills at every grade level and so that they build on their skills each year.
- Order high quality resources that enable students to conduct successful inquiry.
- Collaborate with classroom teachers to co-teach whenever possible.
- Align the implementation of the Continuum with your school's goals and your students' needs.
- Collaborate with your administrator to integrate the teaching and learning in the library with the principles and practice of teaching and learning throughout the school.



# IFC Table of Contents

Vision and Goals for Exemplary Library Programs.....	4
Information Fluency Continuum: Framework and Key Indicators .....	5
Sources .....	10

## **Information Fluency Continuum for Grade-Level Groupings: K-2; 3-5; 6-8; 9-12**

### **Standard One: Using Inquiry to Build Understanding and Create New Knowledge**

Connect .....	12
Wonder.....	14
Investigate .....	16
Construct .....	25
Express .....	29
Reflect.....	32

### **Standard Two: Pursuing Personal and Aesthetic Growth**

Reader/Viewer Response and Expression .....	35
Personal Exploration.....	39
Motivated, Independent Learning.....	41

### **Standard Three: Demonstrating Social Responsibility**

Importance of Information to a Democratic Society .....	44
Effective Social Interaction to Broaden Understanding .....	45
Ethical Behavior in Use of Information.....	46

# New York City School Library System

## INFORMATION FLUENCY CONTINUUM

### Vision and Goals

#### VISION

*The library fosters a community of learning and literacy that leads to high academic achievement, independent reading and learning, and collaboration throughout the school.*

#### GOALS FOR EFFECTIVE LIBRARY PROGRAMS

***Students are motivated and independent learners.***

- Students successfully employ information literacy, technology, and critical thinking skills in subject-area learning experiences.
- Students are engaged in independent reading and inquiry-based learning.

***The library is a powerful intellectual and social space where students and teachers gather ideas, exchange points of view, and learn together.***

- Students and teachers have access to certified school library media specialists.
- Students have equitable access to the library and its resources.
- The library provides access to high-quality resources in a variety of formats that support curricular and instructional goals and respond to diverse student needs and interests.
- The library facility is welcoming, with a climate conducive to individual and shared learning.
- Current technology is available and operable to support multiple learning experiences in the library and remote access to library resources.

***The library program supports a culture of literacy throughout the school.***

- Teachers integrate resources and information-literacy skills into every classroom.
- Teachers collaborate with the librarian and other teachers to optimize instruction and curriculum design.

***The library fosters a professional learning community.***

- Teachers, principals, and librarians engage in ongoing professional development.
- Librarians facilitate professional dialogue and networking among teachers, principals, and other librarians to support continuous improvement of practice.



New York City School Library System

# INFORMATION FLUENCY CONTINUUM - *Revised 2010*

## ***Framework and Key Indicators***

### **STANDARD 1**

#### **USING INQUIRY TO BUILD UNDERSTANDING AND CREATE NEW KNOWLEDGE**

***"I am a thinker."***

An independent learner asks authentic questions and accesses, evaluates, and uses information effectively to develop new understandings.

#### INQUIRY PHASE: CONNECT

***At the beginning of the Connect Phase, a student may ask:***

- What interests me about this idea or topic?
- What do I already know or think I know about this topic?
- What background information would help me get an overview of my topic?

#### **INDICATORS**

- Understands the process of inquiry.
- Recognizes purpose for inquiry.
- Connects ideas to self; finds personal passion.
- Connects ideas to previous knowledge.
- Observes and experiences to gain background and context.
- Identifies a focus or topic for inquiry.
- Identifies key concepts and terms.
- Identifies the "big picture" or schema.

***Before moving to the Wonder Phase, a student may ask:***

- Do I know enough about the idea or topic to ask good questions?
- Am I interested enough in the idea or topic to investigate it?

#### INQUIRY PHASE: WONDER

***At the beginning of the Wonder Phase, a student may ask:***

- What intriguing questions do I have about the topic or idea?
- Why am I doing this research?
- What do I expect to find?

#### **INDICATORS**

- Develops and refines questions.
- Makes predictions about the kind of **information** needed to answer the questions and the **sources** that will be most likely to have that information.
- Forms tentative thesis or hypothesis to guide research.

***Before moving to the Investigate Phase, a student may ask:***

- Can my question(s) be answered through investigation?
- Will my question(s) lead me to answers that will fulfill my assignment or purpose for research?

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## INQUIRY PHASE: INVESTIGATE

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***At the beginning of the Investigate Phase, a student may ask:***

- What are all of the sources that might be used?
- Which sources will be most useful and valuable?
- How do I locate these sources?
- How do I find the information within each source?
- How do I evaluate the information that I find?

**INDICATORS**

- Understands the organization of a library.
- Plans research and follows a timeline.
- Uses successful information and technology strategies and tools to locate **sources** of information.
- Seeks information from diverse genres, formats, and points of view.
- Evaluates sources for usefulness, relevance, clarity of organization, currency, validity and authority.
- Understands the organization of information and uses strategies to locate **information** within a resource.
- Uses reading, thinking, and visual literacy strategies to derive meaning from information and monitor own understanding.
- Evaluates information to determine accuracy, currency and relevance for answering questions.
- Evaluates information for fact, opinion, point of view, and bias.
- Selects, paraphrases, summarizes and records appropriate information in reflective and interactive process.
- Identifies gaps in information.

***Before moving to the Construct Phase, a student may ask:***

- Have I located sources with diverse perspectives?
- Have I found enough accurate information to answer all my questions?
- Have I discovered information gaps and filled them with more research?
- Have I begun to identify relationships and patterns and thoughtfully reacted to the information I found?

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## INQUIRY PHASE: CONSTRUCT

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***At the beginning of the Construct Phase, a student may ask:***

- Have any main ideas emerged from the research?
- Did I find enough evidence to form an opinion or support my thesis?
- What organizational patterns or tools will help me make sense of my information?

**INDICATORS**

- Makes sense of information by clarifying main and supporting ideas.
- Looks for patterns and connects ideas across resources.
- Organizes information by using a variety of tools and strategies.
- Discusses, collaborates, and negotiates meaning with others.
- Compares new ideas to prior knowledge and reflects on new understandings.
- Draws conclusions by integrating new ideas with prior knowledge.

***Before moving to the Express Phase, a student may ask:***

- Have I drawn conclusions that are supported by the evidence?
- Have I organized my conclusions and evidence to present them effectively?

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## INQUIRY PHASE: EXPRESS

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***At the beginning of the Express Phase, a student may ask:***

- What type of product or presentation will allow me to present my conclusions and evidence effectively to the intended audience?
- What technology will help me create a product or presentation?
- How will I get help to revise and edit my product?

**INDICATORS**

- Uses creative thought processes to express new understandings.
- Communicates information and ideas in a variety of formats.
- Uses writing process to develop new understandings and create products.
- Uses standard citation and bibliographic formats.
- Uses technology tools to create original products.

***Before moving to the Reflect Phase, a student may ask:***

- Have I organized the product/presentation to make my major points and present convincing evidence?
- Does my product/presentation fulfill all the requirements of the assignment?

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## INQUIRY PHASE: REFLECT

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***At the beginning of the Reflect Phase, a student may ask:***

- Is my product/presentation as effective as I can make it?
- How well did my inquiry process go?
- How can I get feedback on my final product to use in my next inquiry project?

**INDICATORS**

- Develops evaluative criteria for the inquiry process.
- Engages in self-evaluation.
- Participates in peer evaluation.
- Asks new questions for continuing inquiry.

***Before moving to another assignment or personal inquiry, a student may ask:***

- What new understandings did I develop about the topic or idea?
- What did I learn about inquiry?
- What new questions do I now want to answer about the topic or idea?

## STANDARD 2

### PURSUING PERSONAL AND AESTHETIC GROWTH

*"I am an explorer."*

An independent learner responds to and creates literary and artistic expressions, uses effective strategies for personal exploration of ideas, and reads on his or her own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

##### INDICATORS

- Uses prior knowledge to connect to and form personal meaning from fiction, non-fiction and multimedia works.
- Deepens understanding of the source by analyzing the parts.
- Selects appropriate resources from a variety of genres.
- Understands creator's purpose, point of view, and voice.
- Makes connections across different works in a variety of genres and formats.
- Discusses, evaluates, and shares literature.
- Creates personal responses to literature using arts and technology.

#### PERSONAL EXPLORATION

##### INDICATORS

- Identifies own areas of interest by reading widely.
- Reads, views, and listens for a variety of purposes.
- Locates reliable information for personal growth.
- Uses the arts and technology for personal expression.
- Participates in networking and sharing of information.

#### MOTIVATED, INDEPENDENT LEARNING

##### INDICATORS

- Selects resources and seeks information related to academic and personal interests in a variety of genres and formats.
- Uses multiple ways to access resources.
- Uses text features to increase understanding.
- Seeks to understand the meaning of what is read.
- Uses technology to find information related to academic and personal interests.

## STANDARD 3

### DEMONSTRATING SOCIAL RESPONSIBILITY

“I am a citizen.”

An independent learner contributes to the learning community by seeking multiple perspectives, sharing his or her understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

##### INDICATORS

- Seeks multiple points of view and a global perspective.
- Respects the principle of equitable access to information.
- Understands that democracy is built on intellectual freedom.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

##### INDICATORS

- Uses multimedia tools to collaborate with others to develop creative projects and share them with an authentic audience.
- Respects and acknowledges ideas and contributions of all group members.
- Collaborates with others to use information effectively and solve problems.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

##### INDICATORS

- Respects intellectual property rights by attributing the sources and avoiding plagiarism.
- Uses information and technology safely, ethically and responsibly.

# New York City School Library System

## INFORMATION FLUENCY CONTINUUM - 2010

## SOURCES

**American Association of School Librarians. Standards for the 21st-Century Learner.**

<http://www.ala.org/ala/mgrps/divs/aasl/guidelinesandstandards/learningstandards/standards.cfm>

## ISTE. National Educational Technology Standards for Students (NETS\*S).

[http://www.iste.org/Content/NavigationMenu/NETS/ForStudents/2007Standards/NETS\\_for\\_Students\\_2007\\_Standards.pdf](http://www.iste.org/Content/NavigationMenu/NETS/ForStudents/2007Standards/NETS_for_Students_2007_Standards.pdf)

**Stripling, Barbara K. "Inquiry-Based Learning."**

In Curriculum Connections Through the Library: Principles and Practice, edited by Barbara K. Stripling and Sandra Hughes-Hassell. Westport, CT: Libraries Unlimited, 2003.



New York City School Library System

**INFORMATION FLUENCY CONTINUUM**

Revised to align with new AASL standards - 2010

**STANDARD 1**


**USING INQUIRY TO BUILD UNDERSTANDING AND CREATE NEW KNOWLEDGE**

*“I am a thinker.”*

An independent learner asks authentic questions and accesses, evaluates,  
and uses information effectively to develop new understandings.




CONNECT					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
<b>At the beginning of the Connect Phase, a student may ask:</b> <ul style="list-style-type: none"><li>• What interests me about this idea or topic?</li><li>• What do I already know or think I know about this topic?</li><li>• What background information would help me get an overview of my topic?</li></ul>						
Understands the process of inquiry	Recognizes that questions can be answered by finding information.	Knows the phases of inquiry and completes the thinking and actions appropriate for each phase with guidance.	Follows the inquiry process to investigate answers to questions and pursue new learning.  Monitors own process and moves to next phase when appropriate.	Uses the inquiry process to pursue personal and academic learning.  Recognizes the recursiveness of inquiry and moves flexibly through the process as phases are successfully completed.	AASL 1.1.1  ISTE NETS-S 3a	
Recognizes purpose for inquiry	Recognizes the purpose of inquiry and that this purpose influences the kind of information needed.	Recognizes the purpose of inquiry and that historical, scientific, and literary inquiry differ in the kind of information needed.	Defines the purpose of inquiry, and aligns questions and investigation with the purpose.  <i>(e.g., historical purpose needs interpretive information and balanced opinions; scientific purpose needs accurate and up-to-date information with supporting evidence).</i>	Defines the purpose of inquiry and recognizes that the type of thinking required by the inquiry will differ according to the purpose.  <i>(e.g., historical—take a position and defend it; scientific—verify accuracy of model and support with evidence; literary—analyze literary and social context).</i>	AASL 1.1.1  ISTE NETS-S 3	
Connects ideas to self; finds personal passion	Connects ideas to own interests.  Identifies areas of strong personal interest.	Connects ideas in texts to own interests.  Identifies and pursues areas of passion and interest.	Connects ideas in texts and in world to own interests.  Finds areas of passion or interest within topics of study.	Connects ideas in texts and in world to own interests.  Pursues areas of passionate interest in depth within topics of study.	AASL 1.1.1 AASL 4.1.2	
Connects ideas to previous knowledge	Shares what is known about the general topic to elicit and make connections to prior knowledge.	States what is known about the problem or question and makes connections to prior knowledge.	States and verifies what is known about the problem or question and makes connections to prior knowledge.	Verifies the accuracy of what is known about the problem or question.	AASL 1.1.2 AASL 4.1.2	
	Shares ideas, asks questions, and makes references to print and nonprint resources.	Shares ideas, asks questions, and makes references to print and nonprint resources.	Shares ideas, asks questions, and makes references to print, nonprint and electronic resources.	Shares ideas, asks questions, and makes references to print, nonprint and electronic resources.		

CONNECT					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Observes and experiences to gain background and context	Actively participates in an experience that introduces a topic, problem or question and responds to the experience/activity by capturing observations and thoughts in pictures, graphics or simple sentences.	Actively participates in an experience that introduces a topic, problem or question and captures observations, questions and reflections by writing, speaking with others or drawing.  Uses sources to acquire background information and brainstorm ideas for further inquiry.	Actively participates in an experience that introduces a topic, problem or question and captures observations, analysis and reflections by writing, speaking with others and drawing.  Uses multiple sources to acquire background information and brainstorm ideas for further inquiry.	Actively participates in an experience that introduces a topic, problem or question; captures observations, analysis and reflections through writing and generates new questions.  Reads background information to discover the complexities of the problem or question and brainstorms ideas for further inquiry.	AASL 1.1.2	
Identifies a focus or topic for inquiry	Restates/Retells and asks questions about the topic, problem or question with guidance.	Restates the topic, problem, or question in own words with guidance to focus on an area for inquiry.	Revises the question or problem as needed to arrive at a manageable topic for inquiry.	Develops and refines the topic, problem, or question independently to arrive at a worthy and manageable topic for inquiry.  Explores problems or questions for which there are multiple answers or no "best" answer.	AASL 1.1.3 ISTE NETS-S 4a	
Identifies key concepts and terms	Identifies one or two key words about a topic, problem, or question with guidance from the librarian.  Identifies key vocabulary by using a picture book or dictionary.	Identifies key words and ideas in a teacher-provided research question.  Generates a list of key words for a research-based project with guidance.	Identifies key words and ideas that appear in background information and class conversation.  Uses and adds to the list of key words throughout the research.	Identifies key words, concepts and synonyms, both stated and implied, for topic and uses them to further research.  Maintains a list of effective search terms throughout the process of inquiry.		
Identifies the "big picture" or schema	Identifies the overall "big picture" idea by stating it orally or drawing a picture.	States the big idea orally, in writing, or by creating a simple mind map.	Expresses the big idea and the relation of own topics of interest to that idea through a mind map using pictures and words.	Develops a schema or mind map to express the big idea and the relationships among supporting ideas and topics of interest.		
<div>  <b>Before moving to the Wonder Phase, a student may ask:</b> <ul style="list-style-type: none"> <li>Do I know enough about the idea or topic to ask good questions?</li> <li>Am I interested enough in the idea or topic to investigate it?</li> </ul> </div>						

WONDER					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
<i>At the beginning of the Wonder Phase, a student may ask:</i> <ul style="list-style-type: none"><li>• What intriguing questions do I have about the topic or idea?</li><li>• Why am I doing this research?</li><li>• What do I expect to find?</li></ul>						
Develops and refines questions	Formulates questions related to listening activities.	Formulates questions about the topic with guidance.	Recognizes characteristics of good questions.	Focuses the purpose of the research by formulating specific questions to be answered.	AASL 1.1.3 AASL 1.2.1	ISTE NETS-S 4a
	Asks “I wonder” questions about the research topic.  Adds to K-W-L chart constructed by class by helping develop questions for W – Wonder.  Looks at questions with librarian or teacher guidance to decide which are the burning questions to be answered.	Develops questions for KWL chart based on prior knowledge and experiences and class conversations.  Asks questions to clarify topics or details.  Assesses questions to determine which can be answered by simple facts, which cannot be answered, and which would lead to an interesting inquiry.	Writes questions independently based on key ideas or areas of focus.  Refines questions to guide the search for different types of information (e.g., overview, big-idea, specific detail, cause and effect, comparison).	Maintains flexible approach to research questions and to key words and concepts.  Refines questions to provide a framework for the inquiry and to fulfill the purpose of the research (e.g., questions to lead to historical context and interpretation; questions to elicit accurate facts about scientific problem or issue).		

***“A lifetime of inquiry begins with a single moment of wonder.”***



WONDER					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Makes predictions about the kind of <u>information</u> needed to answer the questions and the <u>sources</u> that will be most likely to have that information	Uses prior knowledge and understanding of specific topic to make predictions about answers to questions.	Uses prior knowledge and understanding of overall topic to make predictions about what the new information will reveal.	Uses prior knowledge, understanding of topic, and background information to make predictions about types of information needed and to identify a limited number of potential resources.	Uses prior knowledge, understanding of essential ideas and questions, and comprehensive background information to make predictions about specific information needed to answer questions and about the effectiveness of potential sources.	AASL 1.1.3; AASL 1.1.4	
	Identifies the type of information needed (e.g., facts, pictures, maps).	Identifies the type of information needed (e.g., facts, explanations, diagrams).	Determines what information is needed to support the investigation and answer the questions.	Determines the kind of information needed to investigate the complexities of the topic and whether different points of view will be important.		
	Identifies the possible sources for information needed.	Predicts what type of resources will most likely contain that information.	Determines what resources will most likely offer quality information.	Determines what resources will offer in-depth and diverse information.		
	Generates ideas for gathering further information.	Generates ideas for gathering further information.	Determines whether different points of view will be important.	Generates ideas for gathering further information.		
Forms tentative thesis or hypothesis to guide research	Predicts answers to inquiry questions based on background knowledge and beginning observation or experience.	Predicts answers to inquiry questions based on background knowledge and beginning observation or experience.	Analyzes and evaluates what is known, observed, or experienced to form tentative thesis or hypothesis.	Analyzes and evaluates what is known, observed, or experienced to form thesis or hypothesis to be tested during the inquiry.	AASL 1.1.3	
		Forms tentative thesis about main idea with guidance.	Plans inquiry to test hypothesis or validate thesis.	Plans inquiry to systematically test hypothesis or to gather evidence to validate thesis.		
<div> <b>Before moving to the Investigate Phase, a student may ask:</b><ul style="list-style-type: none"><li>• Can my question(s) be answered through investigation?</li><li>• Will my question(s) lead me to answers that will fulfill my assignment or purpose for research?</li></ul></div>						

INVESTIGATE						Standard 1
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
<p><i>At the beginning of the Investigate Phase, a student may ask:</i></p> <ul style="list-style-type: none"><li>• What are all of the sources that might be used?</li><li>• Which sources will be most useful and valuable?</li><li>• How do I locate these sources?</li><li>• How do I find the information within each source?</li><li>• How do I evaluate the information that I find?</li></ul>						
Understands the organization of a library	Demonstrates the ability to use the library and check out books.  Follows signage to locate important areas of the library media center.  Distinguishes between fiction and nonfiction resources.  Recognizes that nonfiction resources in the library are organized by categories and begins to associate the Dewey numbers with areas of interest.  Recognizes that fiction and picture books are organized by the author's last name in A-B-C order.	Demonstrates the ability to use the library and check out a variety of sources.  Recognizes the organization and use of important areas of the library media center.  Identifies the ten major Dewey areas and what main topics are included in each.  Recognizes that fiction books are organized by author's last name.	Recognizes the organization and use of special sections in the library (e.g., reference, graphic novels, paperbacks).  Uses the categorization of materials within Dewey areas to locate resources and browse for additional materials.  Transfers the understanding of school library organization to use of the public library.	Recognizes the organization and use of special sections in the library (e.g., reference, reserve books, databases).  Explores multiple Dewey areas to browse for information about different aspects of the same topics.  Transfers the understanding of library organization to public, academic and special libraries.  Becomes familiar with the concepts underlying the Library of Congress classification system.	AASL 1.1.1; AASL 1.2.2	
Plans research and follows a timeline	Follows a modeled inquiry process during each visit to the library to do research.	Follows a model or template provided to complete inquiry projects and follows a timeline	Follows a complete research plan and stays on a timeline.	Follows a complete research plan and adjusts timeline when necessary.		

INVESTIGATE					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Uses successful information and technology strategies and tools to locate sources of information	Uses ABC arrangement of picture and fiction books to locate materials.	Recognizes and uses a variety of systems for organizing (e.g., basic library systems, ABC order, numerical order) in order to locate sources independently.	Uses organizational systems and electronic search strategies (key words, subject headings) to locate appropriate resources.	Uses search strategies (Boolean operators, synonyms, and relational searching) to broaden and narrow searches and locate appropriate resources.	AASL 1.1.4; AASL 1.1.8; AASL 1.2.2	
	Locates nonfiction materials at appropriate reading levels with assistance.	Locates nonfiction materials at appropriate reading level.			ISTE NETS-S 3c	
	Recognizes the purpose of the online catalog to locate materials.	Searches the online catalog (author, title, and subject) with assistance to locate materials.	Uses online catalog independently to locate specific books, get classification numbers, and browse the shelves.	Uses online catalog independently to locate specific books, get classification numbers of related areas, and browse the shelves in each area.		
	Uses online encyclopedias, magazine databases, and other technology resources with guidance.	Uses pre-selected Web resources to locate information.  Uses pre-selected primary sources to gather information.  Uses bookmarked Websites and selected search engines to find appropriate information.	Uses technology resources such as online encyclopedias, online databases, and Web subject directories to locate information on assigned topics in the curriculum.  Participates in supervised use of search engines and pre-selected Web resources to access appropriate information for research.	Uses technology resources such as the online catalog, online encyclopedias, online databases, Web subject directories, and links from valid Websites to locate primary and secondary information on topics of inquiry.  Conducts advanced Web searches using Boolean logic and other sophisticated search functions.		
		Uses at least two sources for research projects.	Uses at least three to four sources for research projects.	Uses a variety of search engines to do advanced searching.  Uses multiple sources for research projects.		



INVESTIGATE						Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards		
Seeks information from diverse genres, formats, and points of view	Recognizes different formats and purposes for resources (e.g., storybooks, information books, encyclopedias).	Identifies available resources (e.g., subscription databases, bookmarked Web sites) and genres that are most appropriate for own abilities and informational needs.	Uses different formats (e.g., books, Websites, subscription databases, multimedia, graphs, charts, maps, and diagrams) as sources of information.	Seeks and uses many different sources in a variety of formats to obtain balanced and complex information and to fill information needs effectively.	AASL 1.1.4; AASL 1.2.2; AASL 1.2.3  ISTE NETS-S3b, c		
	Distinguishes purpose of various types of genres (e.g., informing, entertaining).	Recognizes the differences and similarities of genres and the types of information included in each.	Matches the genre selected with the purpose for gathering information.	Recognizes the effect of genre on the information presented.			
	Selects and uses appropriate sources with guidance to answer questions: 1 – Picture dictionary, beginning encyclopedia. 2 – Dictionary, periodicals, maps, and globes.	Selects and uses multiple appropriate print, nonprint, electronic and human sources to answer questions: 3 – Thesauri, general encyclopedias, periodical databases. 4 – Almanacs, indexes, specialized dictionaries and encyclopedias, databases, 5 – Databases, unabridged dictionaries.	Understands the concept of balanced points of view.  Seeks balanced view by using diverse sources to access appropriate material.	Seeks resources with diverse opinions and points of view and evaluates them carefully, particularly on controversial, historical, or culturally based topics.  Uses specialized reference materials to find specific and in-depth information.			
			Uses both primary and secondary sources.	Uses both primary and secondary sources.			
Evaluates sources for usefulness, relevance, clarity of organization, currency, validity and authority	Examines the title, pictures and text of a book to determine its usefulness in answering the research questions.	Evaluates the relevance and clarity of organization of sources by examining the title, table of contents and index of books and the layout and navigation tools of websites.	Evaluates the currency and validity (specific connection to research questions and related ideas) of print and electronic sources by looking at the copyright date, examining the overall organization and text.	Evaluates the authority of a source by assessing the credentials and reputation of the author, creator and publisher.	AASL 1.1.4  ISTE NETS-S3c		



INVESTIGATE					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Understands the organization of information and uses strategies to locate information within a resource	Identifies and uses parts of a book to locate and gather information: K – Cover, title page, spine, barcode, illustrations. 1 – Call number. 2 – Dedications, verso, publisher, place of publication, index.	Identifies and uses the organizational structures of a nonfiction book to locate information: 3 – Table of contents, index, glossary. 4 – Bibliography, appendix. 5 – Preface, foreword, introduction.	Uses table of contents, index, chapter and section headings, topic sentences, and summary sentences to locate information and select main ideas.	Uses the organizational features of a book as well as abstracts, tables, charts and first and last chapters to locate main ideas, specific supporting evidence, and a balanced perspective.	AASL 1.1.5 ISTE NETS-S 3b, 4c	
	Understands the basic organizational structure of books.	Uses skim/scan to locate information that is appropriate to age and ability level.	Uses skim/scan to locate main ideas.	Uses skim/scan to locate main ideas and supporting evidence.		
	Understands how to click to advance through an electronic resource.	Uses navigation tools of a Website to find information.	Uses the structure and navigation tools of a Website to find the most relevant information.	Adjusts search strategies by comparing information gathered with the problem or question.		



INVESTIGATE					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Uses reading, thinking, and visual literacy strategies to derive meaning from information and monitor own understanding	Forms images while reading or listening to text.	Questions text during reading or listening.	Summarizes and reacts to text after each section.	Challenges ideas in text and makes note of questions to pursue in additional sources.	AASL 1.1.6; AASL 1.4.1; AASL 2.1.1  ISTE NETS-S 3b	
		Identifies main ideas and supporting details. Stops after each paragraph to summarize the main idea in the text.	Identifies multiple levels of meaning. Stops periodically to summarize and paraphrase the meaning of the text.	Recognizes and interprets multiple levels of meanings.		
	Uses text structures to find information that answers questions (bold text, chapter titles).	Uses text structures to find information that answers questions (topic sentences, bold and boxed text, captions, chapter headings and subheadings).	Uses text structures to derive relationships among ideas presented (chapter titles and subtitles, topic sentences, marginal notes, organizational pattern within chapter).	Uses text structures to derive relationships among ideas and deeper or more subtle meaning (signal words; patterns such as cause/effect, comparison, sequence; foundational vs. detailed information).		
	Uses visual and oral features of Web sites to find information of interest.	Uses organizational structures of Web sites to find the main idea and follow the links to supporting ideas.	Uses organizational structures of Web sites to derive relationships of ideas (site map, table of contents or tabs, links).	Uses organizational structures of Web sites to derive relationships of ideas (site map, table of contents or tabs, links).		
	Uses prior knowledge to understand new facts.	Uses prior knowledge and experiences to understand new facts and ideas.	Relates new information to prior knowledge.	Relates new information to prior knowledge and real-world experiences.		
	Interprets information represented in pictures, illustrations, and simple charts and verbalizes the main idea.	Interprets information taken from maps, graphs, charts, and other visuals.	Analyzes maps, charts, graphs, and other visuals to gather information and determine the main idea.	Analyzes maps, pictures, charts, graphs, and other information presented visually to determine main ideas and supporting details.		
		Revises ideas as new information is gained.	Identifies misconceptions and revises ideas as new information is gained.	Revises own point of view and preconceptions as new information is gained.		


<b>INVESTIGATE</b>					<b>Standard 1</b>	
<b>Indicator</b>	<b>Grade K-2</b>	<b>Grade 3-5</b>	<b>Grade 6-8</b>	<b>Grade 9-12</b>	<b>Related Standards</b>	
Evaluates information to determine accuracy, currency and relevance for answering questions	Uses materials provided to find answers to questions posed.	Evaluates print and electronic information for usefulness, relevance and accuracy.	Evaluates quality of electronic and print information for usefulness, currency, authority and accuracy.	Evaluates information from a variety of sources for accuracy, appropriateness, validity and comprehensiveness.	AASL 1.1.5; AASL 1.2.1 ISTE NETS-S 3b, 4c	
	Recognizes facts.	Determines important details.	Differentiates between important and unimportant details.	Determines the significance of information to the specific research question.		
	Recognizes when one fact conflicts with another fact.	Evaluates information to determine whether it is accurate.	Evaluates electronic and print information to determine whether it is inaccurate or misleading.	Recognizes statements that can be verified.		
				Recognizes that even accurate facts can be misleading if relevant facts are omitted or if context is not provided.		
		Recognizes when information in one source conflicts with information in another source.	Seeks additional information when conflicting information is found.	Verifies all facts through use of multiple sources.		
				Extends search beyond readily available sources to ensure accuracy and comprehensiveness.		
			Selects information based on authority and point of view.	Pursues a balanced perspective by evaluating information based on authority, accuracy, point of view, and reliability.		

<b>INVESTIGATE</b>					Standard 1
<b>Indicator</b>	<b>Grade K-2</b>	<b>Grade 3-5</b>	<b>Grade 6-8</b>	<b>Grade 9-12</b>	<b>Related Standards</b>
Evaluates information for fact, opinion, point of view, and bias	Distinguishes between fact and opinion	Distinguishes between fact and opinion.  Tries to use facts rather than opinions when doing research.  Recognizes how pictures and words are used to persuade.	Uses both facts and opinions responsibly by identifying and verifying them.  Recognizes various techniques used by creator to persuade or propagandize.  Recognizes the effect of different perspectives and points of view on the information.  Recognizes that own point of view influences the interpretation of information	Recognizes competing interpretations of historical events and issues and the reasons for those differences.  Recognizes the author's use of tone to convey point of view.  Recognizes degrees of bias (from slightly slanted point of view to heavily slanted propaganda).  Counters the effect of bias on the accuracy and reliability of information by actively pursuing a balanced perspective.  Pursues a balanced perspective of fact, opinion, and different points of view.  Maintains a critical stance toward own point of view and interpretation of information.	AASL 1.1.7  ISTE NETS-S 3b

INVESTIGATE					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Selects, paraphrases, summarizes and records appropriate information in reflective and interactive process	Finds facts and briefly summarizes them via writing, drawing, or verbalization to answer research questions.	Paraphrases, summarizes information that answers research questions.	Evaluates, paraphrases, summarizes information that answers research questions.	Evaluates, paraphrases, summarizes, and interprets information that answers research questions and gives an accurate picture of the research topic.	AASL 1.1.7; AASL 1.4.1; AASL 2.4.1  ISTE NETS-S 3b, 4c	
			Uses quotations when appropriate.	Uses quotations strategically.		
	Writes, draws, or verbalizes the main idea and supporting details.	Uses various note taking strategies (e.g., outlining, underlining, bulleted lists, highlighting, graphic organizers).	Takes notes using one or more of a variety of note taking strategies, including reflecting on the information (e.g., graphic organizers, two-column notes).	Takes notes using one or more of a variety of note taking strategies, including reflecting on the information (e.g., graphic organizers, two-column notes).		
	Uses simple note taking strategies as demonstrated by librarian/teacher (e.g., copying words or phrases).		Categorizes information; adds new categories as necessary.	Categorizes information; adds new categories as necessary; explores connections among categories.		
		Uses software (e.g., word processing, graphic organizing) to record and organize information.	Uses digital tools (e.g., word processing, presentation, Google docs, del.icio.us) to record and organize information.	Uses collaborative and independent digital tools (e.g., word processing, simple database or spreadsheet, presentation, Google docs, del.icio.us) to record and organize information.		
		Uses feedback from librarian/teachers to rethink information gathered.	Uses feedback from librarian/teachers, peers, and experts to rethink and evaluate information gathered.	Uses feedback from librarian/teachers, peers, and experts and maintains flexibility in topic and research strategies to incorporate new ideas as they are found.		
				Maintains an open attitude about new areas of the subject that were previously unknown or overlooked.		



INVESTIGATE					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Identifies gaps in information	Responds to questions posed by librarian/teacher by investigating further.	Recognizes gaps in information with guidance.	Recognizes gaps in information independently.	Independently recognizes gaps in information (based on the complexity of the problem or question).	AASL 1.1.7; AASL 1.2.1; AASL 1.4.4	
			Brainstorms ideas for further information.	Brainstorms ideas for further information.  Determines the extent of the research by the complexity of the subject, not by time or page limits.		



**Before moving to the Construct Phase, a student may ask:**

- Have I located sources with diverse perspectives?
- Have I found enough accurate information to answer all my questions?
- Have I discovered information gaps and filled them with more research?
- Have I begun to identify relationships and patterns, and thoughtfully reacted to the information I found?



CONSTRUCT					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
<i>At the beginning of the Construct Phase, a student may ask:</i> <ul style="list-style-type: none"><li>• Have any main ideas emerged from the research?</li><li>• Did I find enough evidence to form an opinion or support my thesis?</li><li>• What organizational patterns or tools will help me make sense of my information?</li></ul>						
Makes sense of information by clarifying main and supporting ideas	Answers the question, “What is this mostly about?”	Uses a variety of strategies to determine important ideas.  Begins to demonstrate independence in determining important ideas in illustrations and text.  States the main idea.	Uses a variety of strategies to determine important ideas both stated and implied.  Determines the main idea by synthesizing main points from several sources.	Identifies main, supporting, and conflicting information to support interpretation.	AASL 2.1.1  ISTE NETS-S 3b, 4c	
	Writes, draws, or verbalizes supporting details.	Identifies facts and details that support main ideas.  Makes inferences with guidance.	Finds supporting examples, definitions, and details.  Makes inferences based on explicit information in text.	Finds supporting evidence from multiple sources.  Makes and explains inferences about main ideas.		






CONSTRUCT					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Looks for patterns and connects ideas across resources	Finds facts in more than one source to answer questions.	Finds similar big ideas in more than one source.	Develops a deeper understanding of the topic by connecting ideas across sources.	Critically examines and analyzes relevant information from a variety of sources to discover relationships among ideas.	AASL 2.1.1 ISTE NETS-S 4c	
	Identifies patterns with guidance.	Identifies patterns and connections.	Analyzes disparate points of view discovered in different sources.	Analyzes different points of view and determines best supported point of view by sorting and sifting evidence.		
	Identifies patterns with guidance.	Identifies patterns and connections.	Determines patterns and discrepancies by comparing and combining information available in different sources.	Determines patterns and discrepancies by comparing and combining information available in multiple diverse sources.		
	Notes similarities and differences in information from different sources.	Notes similarities and differences in information from two different sources.	Questions the differences between sources and seeks additional sources to resolve.	Resolves conflicting evidence or clarifies reasons for differing interpretations of historical events.		
			Interprets information and ideas by defining, classifying, and inferring.	Builds a conceptual framework by synthesizing ideas gathered from multiple sources.		



*“Man’s mind, once stretched by a new idea,  
never regains its original dimensions.”*

— Oliver Wendell Holmes

CONSTRUCT					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Organizes information by using a variety of tools and strategies	Demonstrates simple organizational skills such as sorting and categorizing.	Organizes information using a teacher-provided tool.  Uses common organizational patterns (chronological order; main idea with supporting ideas) to organize information.	Uses various organizational tools for making distinctions and connections among ideas.  Uses common organizational patterns (chronological order, cause and effect, compare/contrast) to organize information in order to draw conclusions.	Organizes information independently, deciding the structure based on the relationships among ideas and general patterns discovered.  Uses organizational patterns to help draw conclusions and build an argument.	AASL 2.1.2; AASL 2.1.4	
		Organizes notes and ideas, and develops an outline or graphic organizer.	Organizes notes and ideas and develops an outline or graphic organizer using both print and electronic tools.	Organizes notes and ideas using both print and electronic tools to create the most appropriate organizational pattern to express the connections and patterns.		
Discusses, collaborates, and negotiates meaning with others	Actively listens.	Actively listens to and restates others' ideas and contributes own ideas.	Respectfully listens to and responds to others' ideas in group discussions.	Understands and builds on the ideas of others.  Changes own ideas based on the ideas of others.  Constructively disagrees with others and contributes to group consensus.	AASL 1.1.9; AASL 2.1.3; AASL 2.1.5; AASL 3.1.2  ISTE NETS-S 2a	

CONSTRUCT						Standard 1
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Compares new ideas to prior knowledge and reflects on new understandings	<p>Completes the L portion of the K-W-L chart with what new ideas were learned.</p> <p>Compares new ideas with what was known at the beginning of the inquiry.</p>	<p>Reviews ideas held at beginning of inquiry and reflections captured during notetaking.</p> <p>Reflects on how ideas changed with more information.</p>	<p>Reviews, revises and applies new ideas learned through inquiry process.</p> <p>Compares information found to tentative thesis or hypothesis; revisits and revises thesis/hypothesis as appropriate.</p>	<p>Forms a conceptual understanding based on new ideas acquired through the inquiry process.</p> <p>Identifies and addresses previously held misconceptions.</p> <p>Identifies when information does not support tentative thesis or hypothesis; gathers additional information or revises thesis/hypothesis.</p>	<p>AASL 2.1.1; AASL 2.2.1; AASL 2.3.2; AASL 2.4.3</p>	
Draws conclusions by integrating new ideas with prior knowledge.	<p>Forms opinion and offers reasons to back it up.</p> <p>Draws a conclusion about the main idea with guidance.</p>	<p>Forms opinion and uses evidence from text to back it up.</p> <p>Draws a conclusion about the main idea.</p>	<p>Forms opinions and judgments backed up by supporting evidence.</p> <p>Combines information and weighs evidence to draw conclusions and create meaning.</p> <p>Draws conclusions based on explicit and implied information.</p>	<p>Develops own point of view and supports with evidence.</p> <p>Combines ideas and information to develop and demonstrate new understanding.</p> <p>Presents different perspectives with evidence for each.</p> <p>Draws clear and appropriate conclusions supported by evidence and examples.</p>	<p>AASL 2.1.3; AASL 2.2.2; AASL 2.2.3; AASL 2.3.2</p> <p>ISTE NETS-S 4b, c, d</p>	
<div>  <p><b>Before moving to the Express Phase, a student may ask:</b></p> <ul style="list-style-type: none"> <li>• Have I drawn conclusions that are supported by the evidence?</li> <li>• Have I organized my conclusions and evidence to present them effectively?</li> </ul> </div>						

EXPRESS					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
<i>At the beginning of the Express Phase, a student may ask:</i> <ul style="list-style-type: none"><li>• What type of product or presentation will allow me to present my conclusions and evidence effectively to the intended audience?</li><li>• What technology will help me create a product or presentation?</li><li>• How will I get help to revise and edit my product?</li></ul>						
Uses creative thought processes to express new understandings	Communicates new understandings through brainstorming, dramatizing, pretending and building.	Communicates new understandings through combining, predicting, illustrating and constructing.	Communicates new understandings through proposing, modifying, translating and blending.	Communicates new understandings through designing, inventing, composing, transplanting and constructing.	AASL 2.2.2; AASL 3.1.1  ISTE NETS-S 1a, b; ISTE NETS-S 2a, b	
Communicates information and ideas in a variety of formats	Presents facts and simple answers to questions.	Presents information clearly so that main points are evident.	Presents conclusions and supporting facts in a variety of ways.	Presents conclusions to answer the question or problem.	AASL 3.1.1  ISTE NETS-S 2b	
	Begins to understand concept of "audience."	Understands the concept of "audience"; determines audience before creating product.	Creates products for authentic reasons and audiences.	Chooses the most appropriate format, tone and language to communicate ideas clearly in real world formats to different audiences.		
	Uses format chosen by the teacher or librarian.	Chooses the format for the product based on personal preference or uses format chosen by the teacher or librarian.	Chooses presentation format based on audience and purpose.	Uses visuals, electronic tools and multimedia to communicate meaning.		
	Presents information in a variety of ways (e.g., art, music, poetry, movement, verbally, and/or written language).	Uses visuals and multimedia to communicate meaning.	Uses visuals and multimedia to communicate meaning.			

EXPRESS					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Uses writing process to develop new understandings and create products	Uses writing process to develop expression of new understandings.	Uses writing process to develop expression of new understandings.	Uses pre-writing to discover alternate ways to present conclusions.	Uses pre-writing to discover most effective way to present conclusions.	AASL 2.1.6; AASL 2.2.4; AASL 3.1.3	ISTE NETS-S 1b; ISTE NETS-S 2a, b
	Creates a product with a beginning, middle, and end.	Creates a product plan using organizational tools (chronological order; main idea with supporting ideas) developed during the Construct Phase.	Creates a product plan using organizational tools (chronological order, cause and effect, compare/contrast) developed during the Construct Phase.	Creates a product plan using organizational tools (cause and effect, compare/contrast, point of view) developed during the Construct Phase.		
	Begins to make changes based on teacher/librarian feedback and suggestions.	Drafts the presentation/ product.	Drafts the presentation/ product tailored to the audience.	Drafts the presentation / product to present an argument, point of view, interpretation, or new model most effectively with supporting evidence.		
		Modifies and revises own work based on feedback from teacher and others.	Assesses own product and criteria, and develops a few ideas for improvement.	Evaluates own product and process throughout the work and uses self-assessment, teacher feedback, and peer feedback to make revisions when necessary.		
Uses standard citation and bibliographic formats.		Checks for correctness and completeness.	Uses two or three strategies to revise product based on self-assessment, teacher feedback, and peer feedback.	Employs a variety of strategies for revising and reviewing own work.		AASL 3.1.6 ISTE NETS-S 5a
		Publishes final product.	Edits for grammar and language conventions.	Edits for grammar, language conventions, tone and style.		
			Publishes final product for a particular audience and purpose.	Publishes final product for an authentic audience and real world application.		
	Identifies the names of sources used.	Cites all sources used according to model provided by teacher.	Cites all sources used according to local style formats.	Cites all sources used according to standard style formats.		



EXPRESS					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Uses technology tools to create original products	Uses technology tools chosen by teacher or librarian to create written products.	Uses a variety of technology tools chosen by librarian or teacher to create products.	Identifies and uses a variety of technology tools, including web-based interactive tools, to organize information, create a product, and enhance communication.	Identifies and uses a variety of technology tools, including Web-based interactive tools, to organize information, create a product, and enhance communication with a real world application.	AASL 2.1.6; AASL 2.2.4; AASL 3.1.4	ISTE NETS-S 1b; ISTE NETS-S 6b


**Before moving to the Reflect Phase, a student may ask:**

- Have I organized the product/presentation to make my major points and present convincing evidence?
- Does my product/presentation fulfill all the requirements of the assignment?



REFLECT					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
<b>At the beginning of the Reflect Phase, a student may ask:</b> <ul style="list-style-type: none"><li>• Is my product/presentation as effective as I can make it?</li><li>• How well did my inquiry process go?</li><li>• How can I get feedback on my final product to use in my next inquiry project?</li></ul>						
Develops evaluative criteria for the inquiry process	Uses authentic assessment rubrics modeled by librarian.	Identifies and evaluates the important features for a good product.	Identifies and evaluates the important features for a good product.  Uses established criteria or collaborates with classmates and teacher to develop criteria for assessment.	Identifies and evaluates the important and subtle features for an effective product.  Collaborates with classmates and teacher to develop criteria for assessment.	AASL 1.4.1; AASL 2.4.2; AASL 3.4.1; AASL 4.4.5; AASL 4.4.6	
	Relates individual experience of the inquiry process – hardest part, best part, etc.	Relates individual experience of the inquiry process – hardest part, best part, skills learned, etc.	Records individual experience of the inquiry process – hardest part, best part, skills learned, insights experienced, etc.	Records individual experience of the inquiry process – the hardest part, best part, skills learned, insights experienced, etc. - with suggestions for future improvements.		
Engages in self-evaluation	Identifies own strengths and sets goals for improvement.  Assesses and revises own work with guidance.	Identifies own strengths and sets goals for improvement.  Assesses and revises own work with guidance.	Identifies own strengths and sets goals for improvement.  Assesses own work and begins to develop own revision process.	Identifies own strengths and sets goals for improvement.  Assesses and revises own work using own revision process.	AASL 1.4.1; AASL 3.1.1; AASL 3.4.1; AASL 3.4.2; AASL 3.4.3; AASL 4.4.5; AASL 4.4.6	



REFLECT					Standard 1	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Participates in peer evaluation	Develops peer evaluation skills through active listening and questioning.	Relies on feedback to figure out how to improve product and process.	Follows plan of work but seeks ideas for improving the process.  Modifies and revises own work based on feedback from others.	Follows plan of work but seeks ideas for improving the process.  Modifies and revises own work based on feedback from others.	AASL 1.4.2	
Asks new questions for continuing inquiry	Asks, "What do I wonder about now?"	Asks, "What about this topic would I like to learn more about?"	Asks, "What about this topic is personally interesting to me? What about this topic do I want to pursue when I have an opportunity?"	Asks, "What about this topic is personally interesting to me and important? What about this topic do I want to pursue when I have an opportunity? Does this topic have implications for future career or college choices?"	AASL 2.4.4	
<div>  <p><b>Before moving to another assignment or personal inquiry, a student may ask:</b></p> <ul style="list-style-type: none"> <li>• What new understandings did I develop about the topic or idea?</li> <li>• What did I learn about inquiry?</li> <li>• What new questions do I now want to answer about the topic or idea?</li> </ul> </div>						

*“Learning is a treasure that will follow its owner anywhere.”*  
*— Chinese proverb*



New York City School Library System

**INFORMATION FLUENCY CONTINUUM**

Revised to align with new AASL standards - 2010

**STANDARD 2**

**PURSUIING PERSONAL AND AESTHETIC GROWTH**

*“I am an explorer.”*

An independent learner responds to and creates literary and artistic expressions, uses effective strategies for personal exploration of ideas, and reads on his or her own by choice.

READER/VIEWER RESPONSE AND EXPRESSION					Standard 2
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards
Uses prior knowledge to connect to and form personal meaning from fiction, non-fiction and multimedia works	Makes connections between literature and own experiences.	Uses personal experiences to stimulate responses to literature (fiction and nonfiction) and multimedia works.	Connects text to personal experiences and prior knowledge.	Assesses the emotional impact of specific works on the reader or viewer.	AASL 4.1.5 ISTE NETS-S 1a
	Creates personal meaning from stories and performances.	Creates personal meaning about key ideas in stories and performances.	Creates personal meaning by reading with a critical eye.	Applies ideas gained from responding to literary and artistic works to own life.	
Deepens understanding of the source by analyzing the parts	Retells stories with the correct sequence of events using words and pictures.	Understands and restates ideas presented through creative formats.	Synthesizes the main idea and theme of a creative work.	Learns new ideas and connects to the human experience through information presented in a variety of genres and formats.	
	Identifies plot, characters, times, and places in a story.	Identifies story elements in various fiction genres.	Interprets literary elements (plot, setting, characters, time) from evidence presented in the text.	Evaluates the effectiveness of a literary work in terms of the author's use of literary and organizational elements.	
	Uses illustrations to draw meaning from a story.	Identifies and uses illustrations, context, graphics, and layout to extract meaning from different formats.	Uses and interprets illustrations, context, graphics and layout to extract meaning from different formats.	Uses and interprets illustrations, context, graphics and layout to extract meaning from different formats and across works.	
		Uses evidence from stories to discuss characters, setting, plot, time, and place.	Recognizes how characters change.	Analyzes interrelationships among the literary elements.	
	Identifies the main idea of an information source.	Identifies the main idea and supporting details of an information source.	Identifies and discusses theme of stories, using evidence to support opinions.	Compares the theme and its treatment in different works of literature.	
			Draws conclusions based on evidence in the text.	Develops new ideas based on conclusions about ideas in the text.	

READER/VIEWER RESPONSE AND EXPRESSION						Standard 2
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Selects appropriate resources from a variety of genres	Selects picture, fiction, and information books on a regular basis; tries some books in other genres (poetry, fairy tales).	Selects books from favorite authors and genres; tries new genres and formats when suggested.	Explores new genres and formats that fulfill interests and reading level (graphic novels, magazines, online magazines, e-books).	Explores real-world genres as well as favorite genres and authors (movie reviews, editorials, consumer reports, game tips and strategies, career information).	AASL 4.1.4; AASL 4.2.4	
	Selects books based on suggestions from teacher or librarian and personal interest.	Selects materials based on a theme, topic, or connection to classroom learning or personal interest.	Selects materials for classroom learning and for personal exploration.	Selects resources for academic, personal, and authentic purposes.		
	Selects some books at the appropriate reading level, other books to be read aloud, and other more challenging books of particular interest for browsing and enjoyment.	Selects both “just right” materials and challenging materials on a regular basis.	Selects both materials at a comfortable reading level and materials that require higher levels of comprehension skills on topics of interest.	Selects materials at all reading levels to satisfy reading interests and needs.		
Understands creator’s purpose, point of view, and voice	Demonstrates understanding that authors and illustrators of both narrative and expository texts are real people who follow a process to create a book.	Describes how an illustrator’s style, elements, and media represent and extend the meaning of the story or the narrative text.	Demonstrates understanding that materials, including narrative and expository, are created by authors expressing their own ideas.	Recognizes and evaluates the creator’s purpose and point of view and how they affect the text; considers and evaluates alternative perspectives.	AASL 4.3.2	
		Uses evidence from the text to discuss the author’s purpose.	Recognizes the creator’s point of view; recognizes that there are diverse points of view that lead to different insights.			

READER/VIEWER RESPONSE AND EXPRESSION					Standard 2
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards
Makes connections across different works in a variety of genres and formats	Compares illustrations by the same illustrator across different stories.	Examines writing style of same author in two different works.	Recognizes similarities and differences among authors writing on the same theme.	Derives multiple perspectives on the same themes by comparing across different works.	AASL 4.1.5
	Compares characters in two different stories, or plots in two stories by the same author.	Compares and contrasts story elements in two literary works.	Makes connections between fiction and nonfiction works on the same topic.	Evaluates accuracy and authenticity of fiction works by comparing to nonfiction works on same subject.	
	Compares different versions of a story.		Compares and contrasts different media representations of the same story.		
Discusses, evaluates, and shares literature	Discusses favorite books and authors through exposure to author studies and series books.	Participates in book talks and book discussion groups.	Participates in literary discussions and book clubs.	Participates in and leads literary discussions and book clubs.	AASL 4.1.3; AASL 4.2.4; AASL 4.3.1
	Distinguishes between what is factual and imaginary.	Distinguishes between fact and opinion.	Identifies point of view and bias.	Evaluates point of view and bias.	
	Expresses feelings about favorite books through pictures and words.	Identifies favorite elements in stories.	Analyzes works of literature to identify the elements that appeal to readers.	Evaluates works of literature to develop critical reviews.	
	Makes predictions about what will happen next in a story.	Makes predictions and inferences about events and characters.	Infers character motivations from story elements.	Evaluates authenticity of plot and character behavior.	
	Draws and shares conclusions about main idea of a story.	Draws and shares conclusions about the theme or focus of a work.	Shares information and literary analysis through discussions.	Uses a variety of formats to create and share critical reviews of works.	
		Discusses problems and solutions in a work.	Discusses problems and solutions in a work.	Discusses problems and solutions in a work.	

READER/VIEWER RESPONSE AND EXPRESSION					Standard 2
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards
Creates personal responses to literature using arts and technology	Expresses feelings about a story through creative products in simple formats using technology, arts and crafts.	Expresses the mood of a story and reader responses through creative products in a variety of formats.	Creates and shares reading experiences and responses in a variety of ways and formats.  Demonstrates an awareness of audience and purpose in creating a response	Shares reading experiences and expresses own ideas through creative products in a variety of formats.  Chooses format appropriate for audience, purpose, and content.  Understands how to express knowledge through artistic works.	AASL 4.1.3; AASL 4.1.8



PERSONAL EXPLORATION					Standard 2
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards
Identifies own areas of interest by reading widely	Recognizes and identifies personal interests through reading or listening to stories.	Identifies new personal interests by reading a variety of materials.	Identifies and pursues personal interests by reading widely in diverse formats and media.	Explores personal interests by reading materials from the wider community.	AASL 4.1.2; AASL 4.3.3; AASL 4.4.1
Reads, views, and listens for a variety of purposes	Reads, views, and listens to a variety of fiction and nonfiction for enjoyment and information.	Establishes and pursues personal reading goals with assistance.  Reads a variety of fiction and nonfiction in different formats to fulfill reading goals and offer enjoyment and information.  Reads to answer questions.	Expands personal reading goals to include new genres and formats.  Reads for a variety of purposes (e.g., to answer questions, skim for facts, pursue new ideas, and explore personal interests).	Sets reading goals and maintains a personal reading list.  Reads for pleasure, to learn, to solve problems, and to explore new ideas beyond the required curriculum.  Develops connections between personal interests, life goals, and career choices.	AASL 4.1.1; AASL 4.2.2; AASL 4.3.3
Locates reliable information for personal growth	Begins to seek information and develop inquiry skills to find materials related to personal interests.  Requests/chooses materials related to personal interests.	Seeks information about personal interests by using the library catalog to find materials to read.  Gathers information related to personal interests.	Independently locates and selects information for personal, hobby, or vocational interests.  Recognizes library and information sources as having value beyond the need for school assignments.	Seeks and locates information about personal interests and usually finds it independently, using the same criteria and strategies used for academic information seeking.  Uses information to address personal issues and investigate opportunities for the future.	AASL 4.1.4; AASL 4.2.2; AASL 4.3.3



PERSONAL EXPLORATION					Standard 2	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Uses the arts and technology for personal expression	Uses technology tools to create and present ideas.	Uses software packages for artistic and personal expression.	Experiments with various types of multimedia software and online applications for artistic and personal expression.	Selects and uses various types of multimedia software and online applications for artistic and personal expression.	AASL 4.1.8 ISTE NETS-S 1c; ISTE NETS-S 6b	
	Expresses own ideas through creating products in a variety of formats.	Develops creative expressions of information to share ideas with peers.	Applies technology productivity tools to meet personal needs.	Applies technology productivity tools to meet personal needs and establish a responsible online personal presence.		
			Uses multimedia authoring tools for independent and collaborative publishing activities.	Seeks opportunities to share creative expressions of information with the community beyond the school.		
Participates in networking and sharing of information	Collaborates with partners and small groups to share information.	Joins groups based on personal interest.	Independently forms groups/networks based on personal interest.	Utilizes networking tools (blogs, wikis, etc.) to connect with groups beyond the school community.	AASL 1.3.4; AASL 3.1.2; AASL 3.2.2; AASL 4.3.1  ISTE NETS-S 2a, b; ISTE NETS-S 5b	
	Respects the ideas and opinions of others.	Recognizes the contribution of each individual in a group.	Creates new knowledge by building on the contributions of others in the group/network.	Creates new knowledge by building on the contributions of groups and networks in the wider community (both virtual and real-world).		
		Understands basic cyber-safety and netiquette.	Utilizes cyber-safety and netiquette guidelines.	Utilizes cyber-safety and netiquette guidelines.		



MOTIVATED, INDEPENDENT LEARNING					Standard 2
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards
<p>Selects resources and seeks information related to academic and personal interests in a variety of genres and formats</p>	<p>Recognizes the works of a single author.</p> <p>Explains personal criteria for selecting a book, poem, or story.</p>	<p>Begins to explore and examine the various genres based on personal interests.</p> <p>Recognizes why some authors and genres have become favorites.</p>	<p>Reads a variety of genres in print and electronic format.</p> <p>Reads independently.</p>	<p>Reads a variety of fiction and nonfiction materials in various formats.</p> <p>Reads/listens to works of international and multicultural authors.</p> <p>Uses print and nonprint resources for information and personal needs; actively seeks answers to questions.</p> <p>Selects print and nonprint materials based on personal interests, knowledge of authors, reading level and aspirations for future growth and career.</p>	<p>AASL 4.1.4</p> <p>ISTE NETS-S 3b, c;</p> <p>ISTE NETS-S 5b, c</p>
<p>Uses multiple ways to access resources</p>	<p>Utilizes print and nonprint sources with guidance to find information.</p>	<p>When the library does not have the needed resources, seeks help in finding the information from another source.</p>	<p>Selects print and nonprint materials based on personal interests, knowledge of authors, and reading level.</p> <p>When materials outside the school are needed, looks for them through electronic access and borrows them from other sources.</p>	<p>Uses interlibrary loan as a regular part of inquiry process. Uses several libraries and online sources to find needed information.</p>	<p>AASL 4.1.1;</p> <p>AASL 4.1.7</p> <p>ISTE NETS-S 3c;</p> <p>ISTE NETS-S 4d;</p> <p>ISTE NETS-S 5a, b</p>
<p>Uses text features to increase understanding</p>	<p>Begins to recognize that different genres require different reading strategies.</p>	<p>Recognizes features of various genres and uses different reading strategies for understanding.</p>	<p>Uses text features in various media and genres to locate specific information and increase comprehension.</p>	<p>Applies understanding of text features to navigate new media.</p>	<p>AASL 1.1.6</p>

MOTIVATED, INDEPENDENT LEARNING					Standard 2	
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Seeks to understand the meaning of what is read	Demonstrates comprehension of stories read independently and stories read aloud.	Understands literal meanings and can identify the main points and supporting details.	Understands literal and implied meanings and can place the meaning in a conceptual framework.	Understands text on both a literal and an abstract level.  Uses context and graphic clues to aid understanding.	AASL 1.1.6  ISTE NETS-S 3b	
	Reads and restates ideas from text presented digitally and in print.	Reads beyond the first screen of Web sites to gather relevant information.	Reads and analyzes all information presented digitally to draw conclusions about topics of personal and academic interest.	Connects the meaning from one digital text to another to gain a comprehensive understanding about a topic of interest.  Considers alternative perspectives and evaluates differing points-of-view.		
Uses technology to find information related to academic and personal interests	Uses simple databases and pre-selected Web sites to locate information to satisfy personal and academic interests.	Uses online catalog strategies to locate information about personal interest topics in school library.  Develops basic search skills for online and database searching related to personal interests.  Uses navigation strategies to locate information within a Web site.	Uses search strategies to locate information on personal and academic interests in online catalogs, databases, and Web sites.  Develops more advanced search skills and applies evaluative criteria to online information related to personal interests.  Uses navigation and linking strategies to expand the search for information to additional appropriate Web sites.	Varies the search strategies and key words used to locate information on academic and personal interests by the type of technology being used.  Critically evaluates all information accessed to maintain a balance between expanding the search to obtain alternative viewpoints and additional information and narrowing the search to include only the highest quality, most relevant information.	AASL 4.1.4  ISTE NETS-S 6a, b, c, d	

New York City School Library System

**INFORMATION FLUENCY CONTINUUM**

Revised to align with new AASL standards - 2010

**STANDARD 3**

**DEMONSTRATING SOCIAL RESPONSIBILITY**

*“I am a citizen.”*

An independent learner contributes to the learning community by seeking multiple perspectives, sharing his or her understandings with others, and using information and resources ethically.

IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY					Standard 3
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards
Seeks multiple points of view and a global perspective	Listens to/reads multicultural texts from various genres.	Considers multiple viewpoints and cultural perspectives.	Considers culturally divergent and opposing viewpoints on topics.	Considers all sides and cultural contexts of issues and evaluates them carefully, particularly on controversial or culturally based topics.	AASL 1.3.2; AASL 3.3.1; AASL 3.3.2  ISTE NETS-S 2c; ISTE NETS-S 4d; ISTE NETS-S 5d
	Compares folktales or stories from different cultures.	Seeks more than one perspective on an issue.  Uses more than one resource when seeking information.	Compares online resources to seek global perspectives.	Uses multiple resources as a general rule to seek a balanced and global perspective.	
Respects the principle of equitable access to information	Begins to associate use of the library with respect for rules and procedures.  Returns materials when they are due so that others have access.	Respects the guidelines for using information resources.  Demonstrates responsibility and awareness that library resources are to be shared among the entire school community.	Maintains respectful use of information resources, both in own library and in other institutions.	Seeks alternative sources of information and respects the guidelines for access in all environments (public libraries, museums, cultural institutions, agencies).	AASL 3.3.6  ISTE NETS-S 5a, d
	Respects the ideas of others by listening and raising hands before speaking.  Recognizes the right to express own opinion in an appropriate manner.	Explores the idea of freedom of expression.  Recognizes the right to express own opinion in an appropriate manner, even when the opinion differs from the ideas of others.	Understands the concept of freedom of expression and the role that it plays in democracy.  Demonstrates tolerance for different opinions.	Can explain First Amendment rights and knows the process available to defend those rights.  Promotes and defends the rights of others.	AASL 3.3.6; AASL 3.3.7  ISTE NETS-S 5a, d

## EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

Standard 3

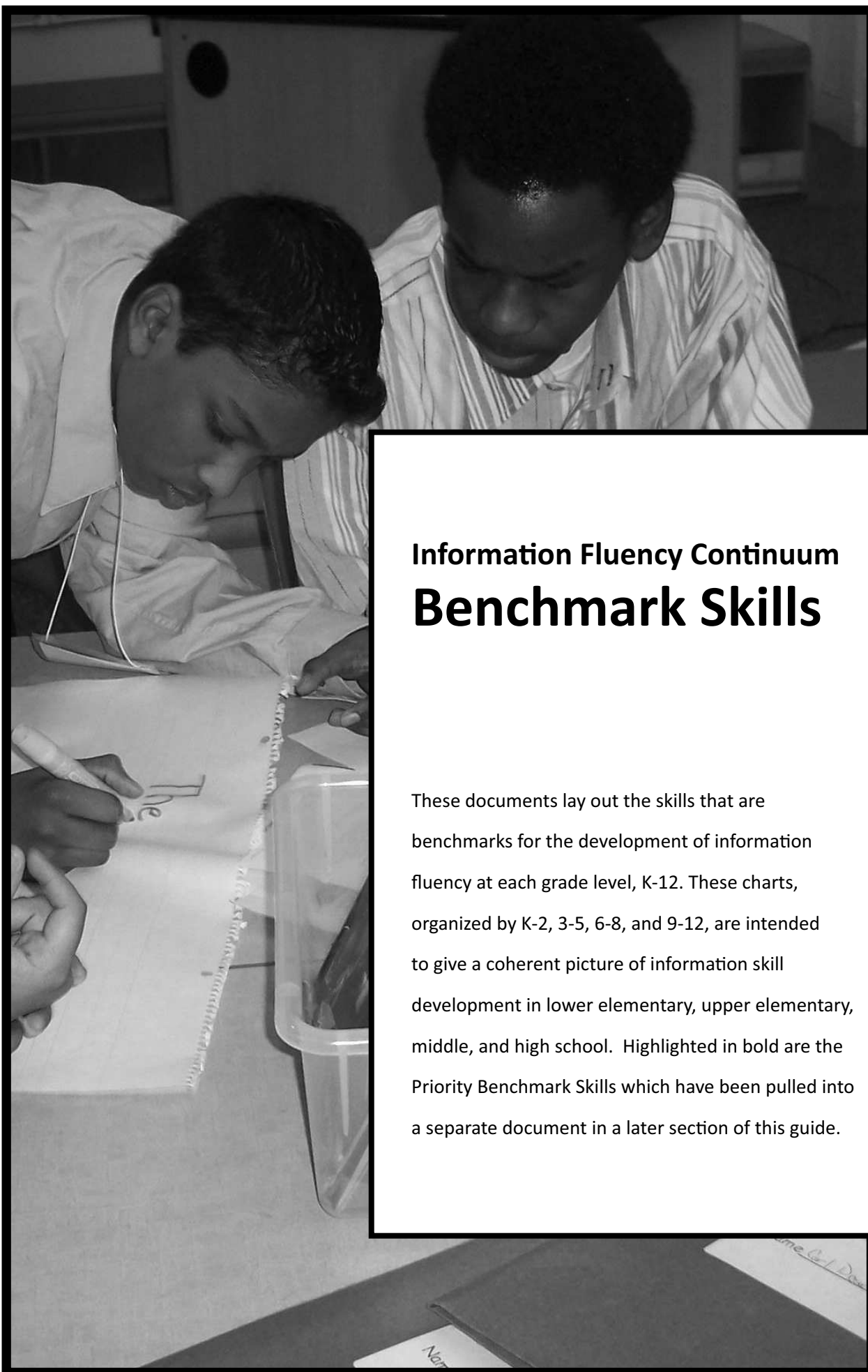
### "I Participate in Groups to Pursue and Generate Information"

Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards
Uses multimedia tools to collaborate with others to develop creative projects and share them with an authentic audience	<p>Uses online tools to read, send, or post electronic messages to peers, experts, and family members with guidance.</p> <p>Works collaboratively with a small group using technology for research to meet information needs.</p> <p>Contributes to a group media project to communicate ideas to classmates, families, and others.</p>	<p>Uses online tools efficiently and effectively to read, send, or post electronic messages to peers, experts, and family members.</p> <p>Works collaboratively using technology for research to meet information needs.</p> <p>Uses a variety of developmentally appropriate media to communicate ideas relevant to the curriculum, classmates, families, and others.</p>	<p>Uses interactive multimedia tools to exchange data collected and to learn curricular concepts by communicating with peers, experts, and other audiences.</p> <p>Works collaboratively to develop, publish, and present projects involving 1-2 media that effectively communicate information and ideas about the curriculum to authentic audiences.</p>	<p>Uses online tools to collaborate, publish, and interact with peers, experts, and other audiences.</p> <p>Works collaboratively to design, develop, publish, and present multimedia projects that effectively communicate information and ideas about the curriculum to authentic audiences.</p>	<p>AASL 3.1.4; AASL 4.3.1</p> <p>ISTE NETS-S 1b; ISTE NETS-S 2a, b, d; ISTE NETS-S 6b</p>
Respects and acknowledges ideas and contributions of all group members	<p>Respects the ideas of others.</p> <p>Practices giving positive feedback and compliments as modeled by librarian.</p>	<p>Shows respect for and responds to the ideas of others.</p> <p>Restates ideas of others accurately and adds own perspective.</p>	<p>Encourages team members to share ideas and opinions.</p> <p>Asks questions of others in a group to elicit their information and opinions.</p>	<p>Seeks ideas and opinions from others, including experts in the field.</p> <p>Respects and helps group members to find and incorporate diverse ideas.</p>	<p>AASL 1.3.4; AASL 3.1.2; AASL 3.2.2</p>
Collaborates with others to use information effectively and solve problems	<p>Works in groups to create and interpret charts of information gathered through research.</p> <p>Uses feedback from others to create individual and collaborative projects.</p>	<p>Expresses own ideas appropriately and effectively while working in groups to identify and resolve information problems, such as fact checking.</p> <p>Creates individual and small-group collaborative projects to share with others.</p>	<p>Participates in problem solving process with group to distinguish what is important and select relevant information to meet needs.</p> <p>Works collaboratively with peers to use technology for research to meet information needs.</p> <p>Helps to organize and integrate contributions of all group members into projects.</p>	<p>Participates in discussion with others to analyze information problems and to suggest solutions.</p> <p>Collaborates locally and remotely with peers, experts, and others to collect, produce, and share information.</p> <p>Works with others to create and evaluate projects that communicate complex information and ideas and respectfully integrate the contributions of all group members.</p>	<p>AASL 3.1.2; AASL 3.2.2; AASL 3.2.3; AASL 3.3.3; AASL 3.3.5</p> <p>ISTE NETS-S 1b; ISTE NETS-S 2a, d</p>



ETHICAL BEHAVIOR IN USE OF INFORMATION					
“I Practice Ethical Behavior”					
Standard 3					
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards
Respects intellectual property rights by attributing the sources and avoiding plagiarism	Understands that it is wrong to copy from an author or another student.	Understands the basic concept of plagiarism as copying the work of others.	Understands the concept of plagiarism and the importance of paraphrasing.	Understands the concept and consequences of plagiarism.	AASL 1.3.1; AASL 1.3.3; AASL 3.1.6
	Takes notes to answer research questions by writing down words and phrases and drawing pictures from sources, but not copying whole sentences.	Uses notetaking skills to answer research questions with words and phrases from sources, but not copying whole sentences.	Takes notes by paraphrasing or using quotation marks when using someone else's words.	Takes notes by paraphrasing, summarizing, or selecting short segments to quote.	ISTE NETS-S 5a, d
	Introduces stories crediting author and illustrator.	By grade 5, credits all sources properly with title, author, and page number.	Gathers and uses information ethically by citing all sources.	Extends respect for intellectual property rights and copyright by crediting sources of ideas as well as directly quoted material.	
	By grade 2, credits sources by citing author and title.	Understands the basic concept of intellectual property.	Credits sources by using correct bibliographic format.	Credits sources by using correct bibliographic format, according to the style selected by the teacher.	
			Understands, respects, and observes copyright laws.	Demonstrates awareness of fair use guidelines and acquires permission from creator when necessary.	
				Demonstrates understanding of the process for copyrighting own work.	

ETHICAL BEHAVIOR IN USE OF INFORMATION						Standard 3
“I Practice Ethical Behavior”						
Indicator	Grade K-2	Grade 3-5	Grade 6-8	Grade 9-12	Related Standards	
Uses information and technology safely, ethically and responsibly	Understands acceptable and unacceptable computer usage according to the Acceptable Use Policy related to use of technology.	Discusses responsible use and misuse of technology, as according to Acceptable Use Policy, and describes personal consequences of inappropriate use of information and technology.	Abides by the Acceptable Use Policy by accessing only appropriate information and using technology responsibly.	Abides by the Acceptable Use Policy in all respects.	AASL 1.3.1; AASL 1.3.3; AASL 1.3.5; AASL 3.1.6; AASL 4.3.4	
	Works cooperatively with peers, family members, and others when using technology in the classroom or at home.	Observes Internet safety procedures including safeguarding personal information.	Observes Internet safety procedures including safeguarding personal information and equipment.  Uses programs and Internet sites responsibly, efficiently, and ethically.	Observes Internet safety procedures including safeguarding personal information and equipment.  Uses programs and Internet sites responsibly, efficiently, and ethically.	ISTE NETS-S 5a, b, c, d	
		Respects privacy of others (e-mail, files, passwords, sites).	Discusses privacy, security, copyright, piracy and downloading, cyberbullying and other issues related to safe and responsible use of information and communication technology.	Discusses privacy, security, copyright, piracy and downloading, cyberbullying and other issues related to safe and responsible use of information and communication technology.		
				Analyzes the consequences and costs of hacking, spamming, consumer fraud, virus setting, intrusion and other unethical uses of information and communication technology and identifies ways of addressing these risks.  Serves as a mentor for others who want to use information technology.		



## Information Fluency Continuum **Benchmark Skills**

These documents lay out the skills that are benchmarks for the development of information fluency at each grade level, K-12. These charts, organized by K-2, 3-5, 6-8, and 9-12, are intended to give a coherent picture of information skill development in lower elementary, upper elementary, middle, and high school. Highlighted in bold are the **Priority Benchmark Skills** which have been pulled into a separate document in a later section of this guide.

# GRADES K-2 • Information Fluency Continuum • Benchmark Skills

STANDARD 1 - USING INQUIRY TO BUILD UNDERSTANDING			
Standard 1	Grade K	Grade 1	Grade 2
Connect	<b>Grade 2 Exit Benchmark Skills – Connect Phase</b> <ul style="list-style-type: none"> <li>Connects ideas to own interests.</li> <li>Shares what is known about the general topic to elicit and make connections to prior knowledge.</li> <li>Recognizes that questions can be answered by finding information.</li> </ul>		
	<ul style="list-style-type: none"> <li>Identifies one or two key words about a topic, problem or question with guidance from the librarian.</li> <li>Connects ideas to own interests.</li> </ul>	<ul style="list-style-type: none"> <li>Shares what is known about the general topic to elicit and make connections to prior knowledge.</li> <li>Restates/retells and asks questions about the topic, problem or question with guidance.</li> </ul>	<ul style="list-style-type: none"> <li>Recognizes that questions can be answered by finding information.</li> <li>Identifies the overall “big picture” idea by stating it orally or drawing a picture.</li> </ul>
Wonder	<b>Grade 2 Exit Benchmark Skills – Wonder Phase</b>		
	<b>Grade 2 Exit Benchmark Skills – Wonder Phase</b> Asks “I wonder” questions about the research topic. <ul style="list-style-type: none"> <li>Formulates questions related to listening activities.</li> </ul>	Adds to K-W-L chart constructed by class by helping develop questions for W – Wonder.	Asks “I wonder” questions about the research topic.

Standard 1	Grade K	Grade 1	Grade 2
<b>Investigate</b>	<b>Grade 2 Exit Benchmark Skills – Investigate Phase</b> <ul style="list-style-type: none"> <li>Follows a modeled inquiry process during each visit to the library to do research.</li> <li>Understands the basic organizational structure of books</li> <li>Distinguishes between fiction and nonfiction resources.</li> <li>Recognizes that fiction and picture books are organized by the author's last name in A-B-C order.</li> <li>Distinguishes between fact and opinion.</li> <li>Finds facts and briefly summarizes them via writing, drawing, or verbalization to answer research questions.</li> <li>Writes, draws, or verbalizes the main idea and supporting details.</li> </ul>		
	<ul style="list-style-type: none"> <li>Uses ABC arrangement of picture books to locate materials.</li> <li><b>Understands the basic organizational structure of books.</b></li> <li><b>Distinguishes between fiction and nonfiction resources.</b></li> <li>Uses materials provided to find answers to questions posed.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates the ability to use the library and check out books.</li> <li>Recognizes that nonfiction resources in the library are organized by categories and begins to associate the Dewey numbers with areas of interest.</li> <li><b>Recognizes that fiction and picture books are organized by the author's last name in A-B-C order.</b></li> <li>Recognizes the purpose of the online catalog to locate materials.</li> <li>Selects and uses appropriate sources with guidance, including picture dictionaries and beginning encyclopedias, to answer questions.</li> <li>Interprets information represented in pictures, illustrations and simple charts and verbalizes the main idea.</li> <li><b>Distinguishes between fact and opinion.</b></li> <li><b>Finds facts and briefly summarizes them via writing, drawing, or verbalization to answer research questions.</b></li> </ul>	<ul style="list-style-type: none"> <li>Uses ABC arrangement of fiction books to locate materials.</li> <li><b>Follows a modeled inquiry process during each visit to the library to do research.</b></li> <li>Uses online encyclopedias, magazines databases, and other technology resources with guidance.</li> <li>Selects and uses appropriate sources with guidance, including dictionaries, periodicals, maps, and globes, to answer questions.</li> <li><b>Writes, draws, or verbalizes the main idea and supporting details.</b></li> <li>Uses simple note-taking strategies as demonstrated by librarian/teacher (e.g., copying words or phrases).</li> </ul>

Standard 1	Grade K	Grade 1	Grade 2
<b>Construct</b>	<b>Grade 2 Exit Benchmark Skills – Construct Phase</b> <ul style="list-style-type: none"> <li>Demonstrates simple organizational skills such as sorting and categorizing.</li> <li>Draws a conclusion about the main idea with guidance.</li> <li>Compares new ideas with what was known at the beginning of the inquiry.</li> </ul>		
	<ul style="list-style-type: none"> <li>Demonstrates simple organizational skills such as sorting and categorizing.</li> </ul>	<ul style="list-style-type: none"> <li>Draws a conclusion about the main idea with guidance.</li> <li>Completes the L portion of the K-W-L chart with what new ideas were learned.</li> </ul>	<ul style="list-style-type: none"> <li>Compares new ideas with what was known at the beginning of the inquiry.</li> </ul>
<b>Express</b>	<b>Grade 2 Exit Benchmark Skills – Express Phase</b> <ul style="list-style-type: none"> <li>Presents facts and simple answers to questions.</li> <li>Presents information in a variety of ways (e.g., art, music, poetry, movement, verbally, and/or written language).</li> </ul>		
	<ul style="list-style-type: none"> <li>Presents facts and simple answers to questions.</li> </ul>	<ul style="list-style-type: none"> <li>Uses writing process to develop expression of new understandings.</li> <li>Uses format chosen by the teacher</li> </ul>	<ul style="list-style-type: none"> <li>Begins to understand concept of “audience.”</li> <li>Presents information in a variety of ways (e.g., art, music, poetry, movement, verbally, and/or written language).</li> <li>Identifies the names of sources used.</li> <li>Uses technology tools chosen by teacher or librarian to create written products.</li> </ul>
<b>Reflect</b>	<b>Grade 2 Exit Benchmark Skills – Reflect Phase</b> <ul style="list-style-type: none"> <li>Identifies own strengths and sets goals for improvement.</li> <li>Asks, “What do I wonder about now?”</li> </ul>		
	<ul style="list-style-type: none"> <li>Identifies own strengths and sets goals for improvement.</li> </ul>	<ul style="list-style-type: none"> <li>Asks, “What do I wonder about now?”</li> <li>Identifies own strengths and sets goals for improvement.</li> </ul>	<ul style="list-style-type: none"> <li>Uses authentic assessment rubrics modeled by librarian.</li> <li>Identifies own strengths and sets goals for improvement.</li> </ul>



# GRADES K-2 • Information Fluency Continuum • Benchmark Skills

## STANDARD 2 - PURSUING PERSONAL AND AESTHETIC GROWTH

Standard 2	Grade K	Grade 1	Grade 2
<b>Reader/Viewer Response and Expression</b>	<ul style="list-style-type: none"> <li>• Retells stories with the correct sequence of events.</li> <li>• Retells a story using words and pictures.</li> <li>• Makes predictions about what will happen next in a story.</li> <li>• Uses illustrations to draw meaning from a story.</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies plot, characters, times, and places in a story.</li> <li>• Draws and shares conclusions about main idea of a story.</li> <li>• Discusses favorite books and authors through exposure to author studies and series books.</li> <li>• Expresses feelings about favorite books through pictures and words.</li> <li>• Distinguishes between what is factual and imaginary.</li> </ul>	<ul style="list-style-type: none"> <li>• Compares characters in two different stories, or plots in two stories by the same author.</li> </ul>
<b>Personal Exploration</b>	<ul style="list-style-type: none"> <li>• Requests/chooses materials related to personal interests.</li> <li>• Reads, views, and listens to a variety of fiction and nonfiction for enjoyment and information.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognizes and identifies personal interests through reading or listening to stories.</li> </ul>	<ul style="list-style-type: none"> <li>• Expresses own ideas through creating products in a variety of formats.</li> </ul>
<b>Motivated, Independent Learning</b>	<ul style="list-style-type: none"> <li>• Recognizes the works of a single author.</li> </ul>	<ul style="list-style-type: none"> <li>• Selects books, poems, or media based on teacher-selected criteria or personal preference.</li> </ul>	<ul style="list-style-type: none"> <li>• Begins to recognize that different genres require different reading strategies.</li> <li>• Demonstrates comprehension of stories read independently and stories read aloud.</li> </ul>

# GRADES K-2 • Information Fluency Continuum • Benchmark Skills

## STANDARD 3 - DEMONSTRATING SOCIAL RESPONSIBILITY

Standard 3	Grade K	Grade 1	Grade 2
<b>Importance of Information to a Democratic Society</b>	<ul style="list-style-type: none"> <li>Begins to associate use of the library with respect for rules and procedures.</li> <li>Respects the ideas of others by listening and raising hands before speaking.</li> </ul>	<ul style="list-style-type: none"> <li>Listens to multicultural texts from various genres.</li> </ul>	<ul style="list-style-type: none"> <li>Reads multicultural texts from various genres.</li> <li>Compares folktales or stories from different cultures.</li> <li>Returns materials when they are due so that others have access.</li> <li>Recognizes the right to express own opinion in an appropriate manner.</li> </ul>
<b>Effective Social Interaction to Broaden Understanding</b>	<ul style="list-style-type: none"> <li>Works collaboratively with a small group using technology for research to meet information needs.</li> <li>Respects the ideas of others.</li> </ul>	<ul style="list-style-type: none"> <li>Contributes to a group media project to communicate ideas to classmates, families, and others.</li> <li>Practices giving positive feedback and giving compliments as modeled by librarian.</li> <li>Works in groups to create and interpret charts of information gathered through research.</li> </ul>	<ul style="list-style-type: none"> <li>Understands that it is wrong to copy from an author or another student.</li> <li>Works cooperatively with peers, family members, and others when using technology in the classroom or at home.</li> </ul>
<b>Ethical Behavior in the Use of Information</b>	<ul style="list-style-type: none"> <li>Introduces stories crediting author and illustrator.</li> </ul>	<ul style="list-style-type: none"> <li>Understands that it is wrong to copy from an author or another student.</li> <li>Works cooperatively with peers, family members, and others when using technology in the classroom or at home.</li> </ul>	<ul style="list-style-type: none"> <li>Credits sources by citing author and title.</li> <li>Takes notes to answer research questions by writing down words and phrases and drawing pictures from sources, but not copying whole sentences.</li> <li>Understands acceptable and unacceptable computer usage according to the Acceptable Use Policy related to use of technology.</li> </ul>

# GRADES 3-5 • Information Fluency Continuum • Benchmark Skills

## STANDARD 1 - USING INQUIRY TO BUILD UNDERSTANDING

Standard 1	Grade 3	Grade 4	Grade 5
<b>Connect</b>	<b>Grade 5 Exit Benchmark Skills – Connect Phase</b> <ul style="list-style-type: none"> <li>Generates a list of key words for a research –based project with guidance.</li> <li>Uses sources to acquire background information and brainstorm ideas for further inquiry.</li> </ul>		
	<ul style="list-style-type: none"> <li>Connects ideas in texts to own interests.</li> <li>States what is known about the problem or question and makes connections to prior knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>Generates a list of key words for a research–based project with guidance.</li> </ul>	<ul style="list-style-type: none"> <li>Uses sources to acquire background information and brainstorms ideas for further inquiry</li> </ul>
	<b>Grade 2 Exit Benchmark Skills – Wonder Phase</b> <ul style="list-style-type: none"> <li>Asks questions to clarify topics or details.</li> <li>Assesses questions to determine which can be answered by simple facts, which cannot be answered, and which would lead to an interesting inquiry.</li> <li>Predicts answers to inquiry questions based on background knowledge and beginning observation or experience.</li> </ul>		
<b>Wonder</b>	<ul style="list-style-type: none"> <li>Formulates questions about the topic with guidance.</li> <li>Uses prior knowledge and understanding of overall topic to make predictions about what the new information will reveal.</li> </ul>	<ul style="list-style-type: none"> <li>Asks questions to clarify topics or details.</li> <li>Predicts answers to inquiry questions based on background knowledge and beginning observation or experience.</li> </ul>	<ul style="list-style-type: none"> <li>Assesses questions to determine which can be answered by simple facts, which cannot be answered, and which would lead to an interesting inquiry.</li> <li>Forms tentative thesis about main idea with guidance.</li> </ul>

Standard 1	Grade 3	Grade 4	Grade 5
<b>Investigate</b>	<p><b>Grade 5 Exit Benchmark Skills – Investigate Phase</b></p> <ul style="list-style-type: none"> <li>Identifies the ten major Dewey areas and what main topics are included in each.</li> <li>Searches the online catalog (author, title, and subject) with assistance to locate materials.</li> <li>Uses bookmarked Websites and selected search engines to find appropriate information.</li> <li>Uses navigation tools of a Website to find information.</li> <li>Paraphrases, summarizes information that answers research questions.</li> <li>Selects and uses multiple appropriate print, nonprint, electronic, and human sources to answer questions.</li> <li>Evaluates print and electronic information for usefulness, relevance, and accuracy.</li> <li>Uses various notetaking strategies.</li> </ul> <ul style="list-style-type: none"> <li><b>Identifies the ten major Dewey areas and what main topics are included in each.</b></li> <li>Locates nonfiction material at appropriate reading level.</li> <li><b>Searches the online catalog (author, title, and subject) with assistance to locate materials.</b></li> <li><b>Uses bookmarked Websites to find appropriate information.</b></li> <li>Selects and uses multiple appropriate print, nonprint, electronic and human sources (e.g., thesauri, general encyclopedias, and periodical databases) to answer questions.</li> <li>Uses at least two sources for research projects.</li> <li>Questions text during reading or listening.</li> <li>Uses simple notetaking strategies (e.g., graphic organizers).</li> <li>Identifies and uses the organizational structures of a nonfiction book (table of contents, index and glossary) to locate information.</li> </ul>	<ul style="list-style-type: none"> <li><b>Uses selected search engines to find appropriate information.</b></li> <li>Uses pre-selected primary sources to gather information.</li> <li>Uses pre-selected Web resources to locate information.</li> <li>Selects and uses multiple appropriate print, nonprint, electronic and human sources (e.g., almanacs, indexes, specialized dictionaries and encyclopedias, and databases) to answer questions.</li> <li>Uses skim/scan to locate information that is appropriate to age and ability level.</li> <li>Distinguishes between fact and opinion.</li> <li>Uses various notetaking strategies (e.g., highlighting, graphic organizers).</li> <li><b>Paraphrases, summarizes information that answers research questions.</b></li> <li>Identifies and uses the organizational structures of a nonfiction book (bibliography and appendix) to locate information.</li> <li>Follows a model or template provided to complete inquiry project and follows a timeline.</li> </ul>	<ul style="list-style-type: none"> <li><b>Selects and uses multiple appropriate print, nonprint, electronic, and human sources to answer questions.</b></li> <li><b>Uses navigation tools of a Website to find information.</b></li> <li>Uses prior knowledge and experiences to understand new facts and ideas.</li> <li>Interprets information taken from maps, graphs, charts and other visuals.</li> <li><b>Evaluates print and electronic information for usefulness, relevance, and accuracy.</b></li> <li>Determines important details.</li> <li><b>Uses various notetaking strategies (e.g., outlining, underlining, bulleted lists, highlighting, graphic organizers).</b></li> <li>Uses software (e.g., word processing, graphic organizing) to record and organize information.</li> <li>Identifies and uses the organizational structures of a nonfiction book (preface, foreword and introduction) to locate information.</li> </ul>

Standard 1	Grade 3	Grade 4	Grade 5
<b>Construct</b>	<b>Grade 5 Exit Benchmark Skills – Construct Phase</b> <ul style="list-style-type: none"> <li>States the main idea.</li> <li>Identifies facts and details that support main ideas.</li> <li>Uses common organizational patterns (chronological order, main idea with supporting details) to organize information.</li> <li>Forms opinion and uses evidence from text to back it up.</li> </ul>		
	<ul style="list-style-type: none"> <li>Uses a variety of strategies to determine important ideas.</li> <li><b>States the main idea.</b></li> <li>Organizes information using a teacher provided tool.</li> </ul>	<ul style="list-style-type: none"> <li><b>Identifies facts and details that support main ideas.</b></li> <li>Notes similarities and differences in information from two different sources.</li> <li><b>Uses common organizational patterns (chronological order, main idea with supporting details) to organize information.</b></li> <li>Draws a conclusion about the main idea.</li> </ul>	<ul style="list-style-type: none"> <li>Makes inferences with guidance.</li> <li><b>Forms opinion and uses evidence from text to back it up.</b></li> <li>Organizes notes and ideas and develops an outline or graphic organizer.</li> <li>Actively listens to and restates others' ideas and contributes own ideas.</li> </ul>
<b>Express</b>	<b>Grade 5 Exit Benchmark Skills – Express Phase</b> <ul style="list-style-type: none"> <li>Chooses the format for the product based on personal preference or uses format chosen by the teacher or librarian.</li> <li>Cites all sources used according to model provided by teacher.</li> <li>Modifies and revises own work based on feedback from teachers and others.</li> <li>Presents information clearly so that main points are evident.</li> </ul>		
	<ul style="list-style-type: none"> <li>Communicates new understandings through combining, predicting, illustrating and constructing.</li> <li><b>Chooses the format for the product based on personal preference or uses format chosen by the teacher or librarian.</b></li> <li>Uses visuals and multimedia to communicate meaning.</li> <li><b>Presents information clearly so that main points are evident.</b></li> </ul>	<ul style="list-style-type: none"> <li>Uses pre-writing to brainstorm ideas for most effective way to present conclusions.</li> <li>Drafts the presentation/product.</li> <li>Understands the concept of “audience”; determines audience before creating product.</li> </ul>	<ul style="list-style-type: none"> <li>Uses writing process to develop expression of new understandings.</li> <li><b>Cites all sources used according to model provided by teacher.</b></li> <li>Uses a variety of technology tools chosen by librarian or teacher to create products.</li> <li><b>Modifies and revises own work based on feedback from teacher and others.</b></li> <li>Checks for correctness and completeness.</li> </ul>

Standard 1	Grade 3	Grade 4	Grade 5
<b>Reflect</b>	<b>Grade 5 Exit Benchmark Skills – Reflect Phase</b> <ul style="list-style-type: none"> <li>Identifies and evaluates the important features for a good product.</li> <li>Assesses and revises own work with guidance.</li> <li>Identifies own strengths and sets goals for improvement.</li> </ul>		
	<ul style="list-style-type: none"> <li>Identifies and evaluates the important features for a good product.</li> <li>Assesses and revises own work with guidance.</li> <li>Identifies own strengths and sets goals for improvement.</li> <li>Asks “What about this topic would I like to learn more about?”</li> </ul>	<ul style="list-style-type: none"> <li>Identifies and evaluates the important features for a good product.</li> <li>Assesses and revises own work with guidance.</li> <li>Identifies own strengths and sets goals for improvement.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies and evaluates the important features for a good product.</li> <li>Assesses and revises own work with guidance.</li> <li>Identifies own strengths and sets goals for improvement.</li> <li>Relies on feedback to figure out how to improve product and process.</li> </ul>

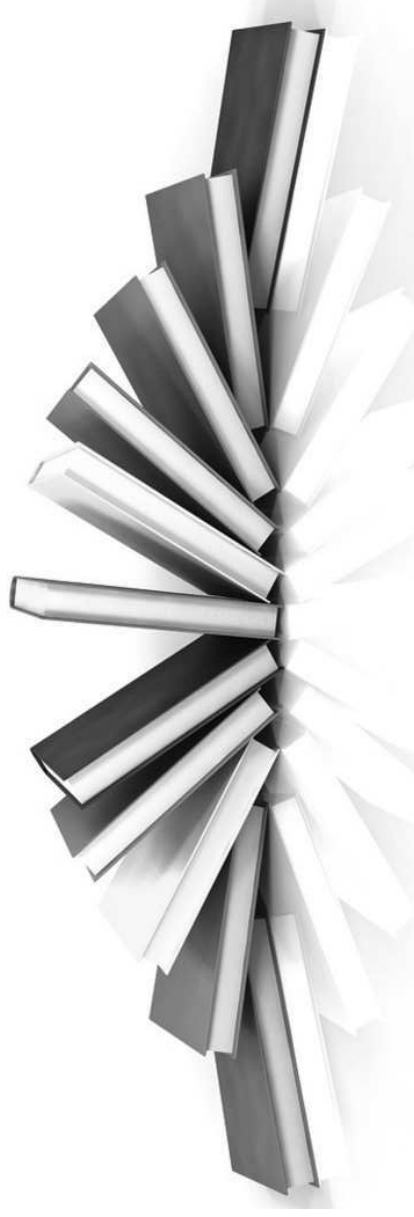




# GRADES 3-5 • Information Fluency Continuum • Benchmark Skills

## STANDARD 2 - PURSUING PERSONAL AND AESTHETIC GROWTH

Standard 2	Grade 3	Grade 4	Grade 5
<b>Reader/Viewer Response and Expression</b>	<ul style="list-style-type: none"> <li>Discusses problems and solutions in a work.</li> <li>Selects both “just right” materials and challenging materials on a regular basis.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies story elements in various fiction genres</li> <li>Uses evidence from stories to discuss characters, setting, plot, time, and place.</li> <li>Makes predictions and inferences about events and characters.</li> </ul>	<ul style="list-style-type: none"> <li>Draws and shares conclusions about the theme or focus of a work.</li> <li>Compares and contrasts story elements in two literary works.</li> </ul>
<b>Personal Exploration</b>	<ul style="list-style-type: none"> <li>Gathers information related to personal interests.</li> <li>Understands basic cybersafety.</li> </ul>	<ul style="list-style-type: none"> <li>Seeks information about personal interests by using the library catalog to find materials to read.</li> <li>Understands basic netiquette.</li> </ul>	<ul style="list-style-type: none"> <li>Reads a variety of fiction and nonfiction in different formats to fulfill reading goals and offer enjoyment and information.</li> </ul>
<b>Motivated, Independent Learning</b>	<ul style="list-style-type: none"> <li>Begins to explore and examine the various genres based on personal interests.</li> </ul>	<ul style="list-style-type: none"> <li>Recognizes features of various genres and uses different reading strategies for understanding.</li> <li>Selects appropriate print and electronic materials on an individual level.</li> </ul>	<ul style="list-style-type: none"> <li>Understands literal meanings and can identify the main points and supporting details.</li> <li>Develops basic search skills for online and database searching related to personal interests.</li> </ul>



# GRADES 3-5 • Information Fluency Continuum • Benchmark Skills

## STANDARD 3 - DEMONSTRATING SOCIAL RESPONSIBILITY

Standard 3	Grade 3	Grade 4	Grade 5
<b>Importance of Information to a Democratic Society</b>	<ul style="list-style-type: none"> <li>Demonstrates responsibility and awareness that library resources are to be shared among the entire school community.</li> </ul>	<ul style="list-style-type: none"> <li>Recognizes the right to express own opinion in an appropriate manner, even when the opinion differs from the ideas of others.</li> </ul>	<ul style="list-style-type: none"> <li>Considers multiple viewpoints and cultural perspectives.</li> </ul>
<b>Effective Social Interaction to Broaden Understanding</b>	<ul style="list-style-type: none"> <li>Shows respect for and responds to the ideas of others.</li> </ul>	<ul style="list-style-type: none"> <li>Restates ideas of others accurately and adds own perspective</li> </ul>	<ul style="list-style-type: none"> <li>Works collaboratively using technology for research to meet information needs.</li> </ul>
<b>Ethical Behavior in Use of Information</b>	<ul style="list-style-type: none"> <li>Observes Internet safety procedures including safeguarding personal information.</li> </ul>	<ul style="list-style-type: none"> <li>Respects privacy of others (e-mail, files, passwords, sites)</li> <li>Understands the basic concept of plagiarism as copying the work of others.</li> </ul>	<ul style="list-style-type: none"> <li>Discusses responsible use and misuse of technology and describes personal consequences of inappropriate use of information and technology.</li> <li>Credits all sources properly with title, author, and page number.</li> </ul>

# GRADES 6-8 • Information Fluency Continuum • Benchmark Skills

## STANDARD 1 - USING INQUIRY TO BUILD UNDERSTANDING

Standard 1	Grade 6	Grade 7	Grade 8
<b>Connect</b>	<b>Grade 8 Exit Benchmark Skills – Connect Phase</b> <ul style="list-style-type: none"> <li>States and verifies what is known about the problem or question and makes connections to prior knowledge.</li> <li>Revises the question or problem as needed to arrive at a manageable topic for inquiry.</li> </ul>		
	<ul style="list-style-type: none"> <li>Finds areas of passion or interest within topics of study.</li> <li>Identifies key words and ideas that appear in background information and class conversation.</li> </ul>	<ul style="list-style-type: none"> <li>States and verifies what is known about the problem or question and makes connections to prior knowledge.</li> <li>Uses multiple sources to acquire background information and brainstorm ideas for further inquiry.</li> </ul>	<ul style="list-style-type: none"> <li>Revises the question or problem as needed to arrive at a manageable topic for inquiry.</li> <li>Expresses the big idea and the relation of own topics of interest to that idea through a mind map using pictures and words.</li> </ul>
<b>Wonder</b>	<b>Grade 8 Exit Benchmark Skills – Wonder Phase</b> <ul style="list-style-type: none"> <li>Analyzes and evaluates what is known, observed or experienced to form tentative thesis or hypothesis.</li> <li>Refines questions to guide the search for different types of information (e.g., overview, big-idea, specific detail, cause and effect, comparison)</li> </ul>		
	<ul style="list-style-type: none"> <li>Recognizes characteristics of good questions.</li> <li>Determines what information is needed to support the investigation and answer the questions.</li> </ul>	<ul style="list-style-type: none"> <li>Writes questions independently based on key ideas or areas of focus.</li> <li>Analyzes and evaluates what is known, observed or experienced to form tentative thesis or hypothesis.</li> <li>Determines what resources will most likely offer quality information.</li> </ul>	<ul style="list-style-type: none"> <li>Refines questions to guide the search for different types of information (e.g., overview, big-idea, specific detail, cause and effect, comparison).</li> <li>Plans inquiry to test hypothesis or validate thesis.</li> </ul>

Standard 1	Grade 6	Grade 7	Grade 8
<b>Investigate</b>	<b>Grade 8 Exit Benchmark Skills – Investigate Phase</b> <ul style="list-style-type: none"> <li>• Uses online catalog independently to locate specific books, get classification numbers, and browse the shelves.</li> <li>• Uses both primary and secondary sources.</li> <li>• Evaluates quality of electronic and print information for usefulness, currency, authority and accuracy.</li> <li>• Uses both facts and opinions responsibly by identifying and verifying them.</li> <li>• Uses different formats (e.g., books, Websites, subscription databases, multimedia, graphs, charts, maps and diagrams) as sources of information.</li> <li>• Recognizes the effect of different perspectives and points of view on information.</li> <li>• Recognizes that own point of view influences the interpretation of information.</li> </ul>		
	<ul style="list-style-type: none"> <li>• Recognizes the organization and use of special sections in the library (e.g., reference, graphic novels, paperbacks).</li> <li>• Follows a complete research plan and stays on a timeline</li> <li>• <b>Uses online catalog independently to locate specific books, get classification numbers, and browse the shelves.</b></li> <li>• Participates in supervised use of search engines and pre-selected Web resources to access appropriate information for research.</li> <li>• Evaluates electronic and print information to determine whether it is inaccurate or misleading.</li> <li>• <b>Uses both primary and secondary sources.</b></li> <li>• Summarizes information that answers research questions.</li> <li>• Differentiates between important and unimportant details.</li> <li>• Takes notes using one or more of a variety of note taking strategies.</li> <li>• Relates new information to prior knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>• Uses the categorization of materials within Dewey Areas to locate resources and browse for additional materials.</li> <li>• Uses technology resources such as online encyclopedias, online databases, and Web subject directories to locate information on assigned topics in the curriculum.</li> <li>• Uses organizational systems and electronic search strategies (key words, subject headings) to locate appropriate resources.</li> <li>• Evaluates and paraphrases information that answers research questions.</li> <li>• <b>Evaluates quality of electronic and print information for usefulness, currency, authority and accuracy.</b></li> <li>• <b>Uses both facts and opinions responsibly by identifying and verifying them.</b></li> <li>• Uses table of contents, index, chapter and section headings, topic sentences, and summary sentences to locate information and select main ideas.</li> <li>• Uses the structure and navigation tools of a Website to find the most relevant information.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Uses different formats (e.g., books, Websites, subscription databases, multimedia, graphs, charts, maps and diagrams) as sources of information.</b></li> <li>• Seeks balanced view by using diverse sources to access appropriate material.</li> <li>• Selects information based on authority and point of view.</li> <li>• <b>Recognizes the effect of different perspectives and points of view on information.</b></li> <li>• <b>Recognizes that own point of view influences the interpretation of information.</b></li> <li>• Identifies misconceptions and revises ideas as new information is gained.</li> </ul>

Standard 1	Grade 6	Grade 7	Grade 8
<b>Construct</b>	<b>Grade 8 Exit Benchmark Skills – Construct Phase</b> <ul style="list-style-type: none"> <li>Combines information and weighs evidence to draw conclusions and create meaning.</li> <li>Uses common organizational patterns (chronological order, cause and effect, compare/contrast) to organize information in order to draw conclusions.</li> <li>Interprets information and ideas by defining, classifying, and inferring.</li> <li>Draws conclusions based on explicit and implied information.</li> </ul>		
	<ul style="list-style-type: none"> <li>Makes inferences based on explicit information in text.</li> <li>Organizes notes and ideas and develops an outline or graphic organizer using both print and electronic tools.</li> <li><b>Combines information and weighs evidence to draw conclusions and create meaning.</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Uses common organizational patterns (chronological order, cause and effect, compare/contrast) to organize information in order to draw conclusions.</b></li> <li><b>Interprets information and ideas by defining, classifying, and inferring.</b></li> <li>Forms opinions and judgments backed up by supporting evidence.</li> <li>Questions the differences between sources and seeks additional sources to resolve.</li> </ul>	<ul style="list-style-type: none"> <li>Analyzes disparate points of view discovered in different sources.</li> <li><b>Draws conclusions based on explicit and implied information.</b></li> <li>Compares information found to tentative thesis or hypothesis; revisits and revises thesis/hypothesis as appropriate.</li> </ul>
<b>Express</b>	<b>Grade 8 Exit Benchmark Skills – Express Phase</b> <ul style="list-style-type: none"> <li>Presents conclusions and supporting facts in a variety of ways.</li> <li>Cites all sources used according to local style formats.</li> <li>Creates products for authentic reasons and audiences.</li> </ul>		
	<ul style="list-style-type: none"> <li>Uses pre-writing to discover alternate ways to present conclusions.</li> <li>Drafts the presentation/product tailored to the audience.</li> <li><b>Presents conclusions and supporting facts in a variety of ways.</b></li> </ul>	<ul style="list-style-type: none"> <li>Publishes final product for a particular audience and purpose.</li> <li><b>Cites all sources used according to local style formats.</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Creates products for authentic reasons and audiences.</b></li> <li>Uses two or three strategies to revise product based on self-assessment, teacher feedback, and peer feedback.</li> <li>Identifies and uses a variety of technology tools, including Web-based interactive tools, to organize information, create a product, and enhance communication.</li> </ul>

Standard 1	Grade 6	Grade 7	Grade 8
Reflect	<b>Grade 8 Exit Benchmark Skills – Reflect Phase</b> <ul style="list-style-type: none"> <li>Identifies own strengths and sets goals for improvement.</li> <li>Uses established criteria or collaborates with classmates and teacher to develop criteria for assessment.</li> </ul>		
	<ul style="list-style-type: none"> <li>Assesses own work and begins to develop own revision process.</li> </ul>	<ul style="list-style-type: none"> <li>Uses established criteria or collaborates with classmates and teacher to develop criteria for assessment.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies own strengths and sets goals for improvement.</li> </ul>



# GRADES 6-8 • Information Fluency Continuum • Benchmark Skills

## STANDARD 2 - PURSUING PERSONAL AND AESTHETIC GROWTH

Standard 2	Grade 6	Grade 7	Grade 8
<b>Reader/Viewer Response and Expression</b>	<ul style="list-style-type: none"> <li>Recognizes similarities and differences among authors writing on the same theme.</li> <li>Participates in literary discussions and book clubs.</li> <li>Compares and contrasts different media representations of the same story.</li> </ul>	<ul style="list-style-type: none"> <li>Recognizes the creator's point of view; recognizes that there are diverse points of view that lead to different insights.</li> <li>Participates in literary discussions and book clubs.</li> </ul>	<ul style="list-style-type: none"> <li>Creates and shares reading experiences and responses in a variety of ways and formats.</li> <li>Participates in literary discussions and book clubs.</li> </ul>
<b>Personal Exploration</b>	<ul style="list-style-type: none"> <li>Identifies and pursues personal interests by reading widely in diverse formats and media.</li> </ul>	<ul style="list-style-type: none"> <li>Independently locates and selects information for personal, hobby, or vocational interests.</li> </ul>	<ul style="list-style-type: none"> <li>Experiments with various types of multimedia software and online applications for artistic and personal expression..</li> </ul>
<b>Motivated, Independent Learning</b>	<ul style="list-style-type: none"> <li>Reads a variety of genres in print and electronic format.</li> <li>Reads independently.</li> </ul>	<ul style="list-style-type: none"> <li>Reads independently.</li> <li>Selects print and nonprint materials based on personal interests, knowledge of authors, and reading level.</li> </ul>	<ul style="list-style-type: none"> <li>Reads independently.</li> <li>Understands literal and implied meanings and can place the meaning in a conceptual framework.</li> </ul>





# GRADES 6-8 • Information Fluency Continuum • Benchmark Skills

## STANDARD 3 - DEMONSTRATING SOCIAL RESPONSIBILITY

Standard 3	Grade 6	Grade 7	Grade 8
<b>Importance of Information to a Democratic Society</b>	<ul style="list-style-type: none"> <li>Demonstrates tolerance for different opinions.</li> </ul>	<ul style="list-style-type: none"> <li>Considers culturally divergent and opposing viewpoints on topics.</li> </ul>	<ul style="list-style-type: none"> <li>Understands the concept of freedom of expression and the role that it plays in democracy.</li> <li>Compares online resources to seek global perspective.</li> </ul>
<b>Effective Social Interaction to Broaden Understanding</b>	<ul style="list-style-type: none"> <li>Encourages team members to share ideas and opinions.</li> <li>Works collaboratively with peers to use technology for research to meet information needs.</li> </ul>	<ul style="list-style-type: none"> <li>Independently locates and selects information for personal, hobby, or vocational interests.</li> </ul>	<ul style="list-style-type: none"> <li>Helps to organize and integrate contributions of all group members into projects.</li> <li>Works collaboratively to develop, publish, and present projects involving 1-2 media that effectively communicate information and ideas about the curriculum to authentic audiences.</li> </ul>
<b>Ethical Behavior in Use of Information</b>	<ul style="list-style-type: none"> <li>Discusses privacy and cyberbullying related to safe and responsible use of information and communication technology.</li> <li>Abides by the Acceptable Use Policy by accessing only appropriate information and using technology responsibly.</li> <li>Understands the concept of plagiarism and the importance of paraphrasing.</li> </ul>	<ul style="list-style-type: none"> <li>Discusses security, piracy and downloading related to safe and responsible use of information and communication technology.</li> <li>Uses programs and Internet sites responsibly, efficiently, and ethically.</li> <li>Observes Internet safety procedures, including safeguarding personal information and equipment.</li> <li>Takes notes by paraphrasing or using quotation marks when using someone else's words.</li> </ul>	<ul style="list-style-type: none"> <li>Discusses copyright related to safe and responsible use of information and communication technology.</li> <li>Gathers and uses information ethically by citing all sources.</li> <li>Credits sources by using correct bibliographic format.</li> </ul>

# GRADES 9-12 • Information Fluency Continuum • Benchmark Skills

## STANDARD 1 - USING INQUIRY TO BUILD UNDERSTANDING

Standard 1	Grade 9	Grade 10	Grade 11	Grade 12
<b>Connect</b>	<b>Grade 12 Exit Benchmark Skills – Connect Phase</b> <ul style="list-style-type: none"> <li>Identifies key words, concepts, and synonyms, both stated and implied, for topic and uses them to further research.</li> <li>Develops a schema or mind map to express the big idea and the relationships among supporting ideas and topics of interest.</li> <li>Develops and refines the topic, problem, or question independently to arrive at a worthy and manageable topic for inquiry.</li> <li>Explores problems or questions for which there are multiple answers or no “best” answer.</li> </ul>			
	<ul style="list-style-type: none"> <li>Reads background information to discover the complexities of the problem or question and brainstorms ideas for further inquiry.</li> <li>Identifies key words, concepts, and synonyms, both stated and implied, for topic and uses them to further research.</li> <li>Develops a schema or mind map to express the big idea and the relationships among supporting ideas and topics of interest.</li> </ul>	<ul style="list-style-type: none"> <li>Develops and refines the topic, problem, or question independently to arrive at a worthy and manageable topic for inquiry.</li> <li>Maintains a list of effective search terms throughout the process of inquiry.</li> </ul>	<ul style="list-style-type: none"> <li>Verifies the accuracy of what is known about the problem or question.</li> </ul>	<ul style="list-style-type: none"> <li>Explores problems or questions for which there are multiple answers or no “best” answer.</li> </ul>



Standard 1	Grade 9	Grade 10	Grade 11	Grade 12
<b>Wonder</b>	<b>Grade 12 Exit Benchmark Skills – Wonder Phase</b> <ul style="list-style-type: none"> <li>Refines questions to provide a framework for the inquiry and to fulfill the purpose of the research.</li> <li>Plans inquiry to systematically test hypothesis or to gather evidence to validate thesis.</li> </ul>			
	<ul style="list-style-type: none"> <li>Focuses the purpose of the research by formulating specific questions to be answered.</li> <li>Determines the kind of information needed to investigate the complexities of the topic and whether different points of view will be important.</li> </ul>	<ul style="list-style-type: none"> <li><b>Refines questions to provide a framework for the inquiry and to fulfill the purpose of the research</b> (e.g., questions to lead to historical context and interpretation; questions to elicit accurate facts about scientific problem or issue).</li> </ul>	<ul style="list-style-type: none"> <li><b>Plans inquiry to systematically test hypothesis or to gather evidence to validate thesis.</b></li> </ul>	<ul style="list-style-type: none"> <li>Uses prior knowledge, understanding of essential ideas and questions, and comprehensive background information to make predictions about specific information needed to answer questions and about the effectiveness of potential sources.</li> </ul>
<b>Investigate</b>	<b>Grade 12 Exit Benchmark Skills – Investigate Phase</b> <ul style="list-style-type: none"> <li>Conducts advanced Web searches using Boolean logic and other sophisticated search functions.</li> <li>Uses the organizational features of a book as well as abstracts, tables, charts and first and last chapters to locate main ideas, specific supporting evidence, and a balanced perspective.</li> <li>Takes notes using one or more of a variety of notetaking strategies, including reflecting on the information (e.g., graphic organizers, two-column notes).</li> <li>Pursues a balanced perspective by evaluating information based on authority, accuracy, point of view, and reliability.</li> <li>Challenges ideas in text and makes notes of questions to pursue in additional sources.</li> </ul>			
	<ul style="list-style-type: none"> <li>Brainstorms ideas for further information.</li> <li>Uses search strategies (Boolean operators, synonyms and relational searching) to broaden and narrow searches and locate appropriate resources.</li> </ul>	<ul style="list-style-type: none"> <li>Uses specialized reference materials to find specific and in-depth information.</li> <li><b>Conducts advanced Web searches using Boolean logic and other sophisticated search functions</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Pursues a balanced perspective by evaluating information based on authority, accuracy, point of view, and reliability.</b></li> <li><b>Uses the organizational features of a book as well as abstracts, tables, charts and first and last chapters to locate main ideas, specific supporting evidence, and a balanced perspective.</b></li> </ul>	<ul style="list-style-type: none"> <li>Seeks resources with diverse opinions and points of view and evaluates them carefully, particularly on controversial, historical or culturally based topics.</li> </ul>

Standard 1	Grade 9	Grade 10	Grade 11	Grade 12
<b>Investigate</b> <i>continued</i>	<ul style="list-style-type: none"> <li>• Uses technology resources such as the online catalog, online encyclopedias, online databases, Web subject directories, and links from valid Web sites to locate primary and secondary information on topics of inquiry.</li> <li>• Uses a variety of search engines to do advanced searching.</li> <li>• Seeks and uses many different sources in a variety of formats to obtain balanced and complex information and to fill information needs effectively.</li> <li>• Adjusts search strategies by comparing information gathered with the problem or question.</li> <li>• Analyzes maps, pictures, charts, graphs, and other information presented visually to determine main ideas and supporting details.</li> <li>• <b>Takes notes using one or more of a variety of notetaking strategies, including reflecting on the information (e.g., graphic organizers, two-column notes).</b></li> </ul>	<ul style="list-style-type: none"> <li>• Uses text structures to derive relationships among ideas and deeper or more subtle meaning (signal words; patterns such as cause/effect, comparison, sequence; foundational vs. detailed information).</li> <li>• Evaluates information from a variety of sources for accuracy, appropriateness, validity and comprehensiveness.</li> <li>• Recognizes statements that can be verified.</li> <li>• Uses collaborative and independent digital tools to record and organize information.</li> <li>• Pursues a balanced perspective of fact, opinion, and different points of view.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognizes degrees of bias (from slightly slanted point of view to heavily slanted propaganda).</li> <li>• Recognizes competing interpretations of historical events and issues and the reasons for those differences.</li> <li>• Evaluates the authority of a source by assessing the credentials and reputation of the author, creator and publisher.</li> <li>• Evaluates, paraphrases, summarizes, and interprets information that answers research questions and gives an accurate picture of the research topic.</li> <li>• Recognizes that even accurate facts can be misleading if relevant facts are omitted or if context is not provided.</li> <li>• Categorizes information; adds new categories as necessary; explores connections among categories.</li> </ul>	<ul style="list-style-type: none"> <li>• Counters the effect of bias on the accuracy and reliability of information by actively pursuing a balanced perspective.</li> <li>• <b>Challenges ideas in text and makes notes of questions to pursue in additional sources.</b></li> <li>• Independently recognizes gaps in information (based on the complexity of the problem or question).</li> <li>• Extends search beyond readily available sources to ensure accuracy and comprehensiveness.</li> <li>• Maintains an open attitude about new areas of the subject that were previously unknown or overlooked.</li> </ul>

Standard 1	Grade 9	Grade 10	Grade 11	Grade 12
<b>Construct</b>	<b>Grade 12 Exit Benchmark Skills – Construct Phase</b> <ul style="list-style-type: none"> <li>Organizes information independently, deciding the structure based on the relationships among ideas and general patterns discovered.</li> <li>Draws clear and appropriate conclusions supported by evidence and examples.</li> <li>Presents different perspectives with evidence for each.</li> <li>Develops own point of view and supports with evidence.</li> <li>Builds a conceptual framework by synthesizing ideas gathered from multiple sources.</li> </ul>			
	<ul style="list-style-type: none"> <li>Combines ideas and information to develop and demonstrate new understanding.</li> <li><b>Organizes information independently, deciding the structure based on the relationships among ideas and general patterns discovered.</b></li> <li>Understands and builds on the ideas of others.</li> </ul>	<ul style="list-style-type: none"> <li>Critically examines and analyzes relevant information from a variety of sources to discover relationships among ideas.</li> <li>Organizes notes and ideas using both print and electronic tools to create the most appropriate organizational pattern to express the connections and patterns.</li> <li><b>Draws clear and appropriate conclusions supported by evidence and examples.</b></li> </ul>	<ul style="list-style-type: none"> <li>Analyzes different points of view and determines best supported point of view by sorting and sifting evidence.</li> <li><b>Presents different perspectives with evidence for each.</b></li> <li>Identifies and addresses previously held misconceptions.</li> </ul>	<ul style="list-style-type: none"> <li><b>Builds a conceptual framework by synthesizing ideas gathered from multiple sources.</b></li> <li>Changes own ideas based on the ideas of others.</li> <li><b>Develops own point of view and supports with evidence.</b></li> </ul>
<b>Express</b>	<b>Grade 12 Exit Benchmark Skills – Express Phase</b> <ul style="list-style-type: none"> <li>Cites all sources used according to standard style formats.</li> <li>Chooses the most appropriate format, tone and language to communicate ideas clearly in real world formats to different audiences.</li> <li>Evaluates own product and process throughout the work and uses self-assessment, teacher feedback, and peer feedback to make revisions when necessary.</li> </ul>			
	<ul style="list-style-type: none"> <li>Presents conclusions to answer the question or problem.</li> <li>Uses visuals, electronic tools and multimedia to communicate meaning.</li> </ul>	<ul style="list-style-type: none"> <li>Drafts the presentation/product to present an argument, point of view, interpretation, or new model most effectively with supporting evidence.</li> <li><b>Cites all sources used according to standard style formats.</b></li> <li>Identifies and uses a variety of technology tools, including Web-based interactive tools, to organize information, create a product, and enhance communication with a real world application.</li> </ul>	<ul style="list-style-type: none"> <li><b>Chooses the most appropriate format, tone and language to communicate ideas clearly in real world formats to different audiences.</b></li> <li>Publishes final product for an authentic audience and real world application.</li> </ul>	<ul style="list-style-type: none"> <li>Communicates new understandings through designing, inventing, composing, transplanting and constructing.</li> <li><b>Evaluates own product and process throughout the work and uses self-assessment, teacher feedback, and peer feedback to make revisions when necessary.</b></li> </ul>

Standard 1	Grade 9	Grade 10	Grade 11	Grade 12
<b>Reflect</b>	<p><b>Grade 12 Exit Benchmark Skills – Reflect Phase</b></p> <ul style="list-style-type: none"> <li>Identifies own strengths and sets goals for improvement.</li> <li>Records individual experience of the inquiry process – the hardest part, best part, skills learned, insights experienced, etc. – with suggestions for future improvements.</li> </ul>			
	<ul style="list-style-type: none"> <li><b>Identifies own strengths and sets goals for improvement.</b></li> </ul>	<ul style="list-style-type: none"> <li>Identifies and evaluates the important and subtle features for an effective product.</li> <li><b>Records individual experience of the inquiry process – the hardest part, best part, skills learned, insights experienced, etc. – with suggestions for future improvements.</b></li> </ul>	<ul style="list-style-type: none"> <li>Assesses and revises own work using own revision process.</li> </ul>	<ul style="list-style-type: none"> <li>Asks, “What about this topic is personally interesting to me and important? What about this topic do I want to pursue when I have an opportunity? Does this topic have implications for future career or college choices?”</li> </ul>



# GRADES 9-12 • Information Fluency Continuum — Benchmark Skills

## STANDARD 2 - PURSUING PERSONAL AND AESTHETIC GROWTH

Standard 2	Grade 9	Grade 10	Grade 11	Grade 12
<b>Reader/ Viewer Response and Expression</b>	<ul style="list-style-type: none"> <li>Shares reading experiences and expresses own ideas through creative products in a variety of formats.</li> </ul>	<ul style="list-style-type: none"> <li>Participates in and leads literary discussions and book clubs.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluates accuracy and authenticity of fiction works by comparing to nonfiction works on same subject.</li> </ul>	<ul style="list-style-type: none"> <li>Explores real-world genres as well as favorite genres and authors (movie reviews, editorials, consumer reports, game tips and strategies, career information).</li> </ul>
<b>Personal Exploration</b>	<ul style="list-style-type: none"> <li>Reads for pleasure, to learn, to solve problems, and to explore new ideas beyond the required curriculum.</li> </ul>	<ul style="list-style-type: none"> <li>Seeks and locates information about personal interests and usually finds it independently, using the same criteria and strategies used for academic information seeking.</li> </ul>	<ul style="list-style-type: none"> <li>Applies technology productivity tools to meet personal needs and establish a responsible online personal presence.</li> </ul>	<ul style="list-style-type: none"> <li>Uses information to address personal issues and investigate opportunities for the future.</li> </ul>
<b>Motivated, Independent Learning</b>	<ul style="list-style-type: none"> <li>Reads a variety of fiction and nonfiction materials in various formats.</li> <li>Uses print and nonprint resources for information and personal needs; actively seeks answers to questions.</li> </ul>	<ul style="list-style-type: none"> <li>Considers alternative perspectives and evaluates differing points-of-view.</li> <li>Connects the meaning from one digital text to another to gain a comprehensive understanding about a topic of interest.</li> </ul>	<ul style="list-style-type: none"> <li>Selects print and nonprint materials based on personal interests, knowledge of authors, reading level and aspirations for future growth and career.</li> </ul>	<ul style="list-style-type: none"> <li>Reads/listens to works of international and multicultural authors.</li> <li>Understands text on both a literal and an abstract level.</li> </ul>



# GRADES 9-12 • Information Fluency Continuum • Benchmark Skills

## STANDARD 3 - DEMONSTRATING SOCIAL RESPONSIBILITY

Standard 3	Grade 9	Grade 10	Grade 11	Grade 12
<b>Importance of Information to a Democratic Society</b>	<ul style="list-style-type: none"> <li>Uses multiple resources as a general rule to seek a balanced and global perspective.</li> </ul>	<ul style="list-style-type: none"> <li>Seeks alternative sources of information and respects the guidelines for access in all environments (public libraries, museums, cultural institutions, agencies).</li> </ul>	<ul style="list-style-type: none"> <li>Considers all sides and cultural contexts of issues and evaluates them carefully, particularly on controversial or culturally based topics.</li> </ul>	<ul style="list-style-type: none"> <li>Can explain First Amendment rights and knows the process available to defend those rights.</li> </ul>
<b>Effective Social Interaction to Broaden Understanding</b>	<ul style="list-style-type: none"> <li>Works with others to create and evaluate projects that communicate complex information and ideas and respectfully integrate the contributions of all group members.</li> </ul>	<ul style="list-style-type: none"> <li>Works with others to create and evaluate projects that communicate complex information and ideas and respectfully integrate the contributions of all group members.</li> </ul>	<ul style="list-style-type: none"> <li>Participates in discussions with others to analyze information problems and to suggest solutions.</li> </ul>	<ul style="list-style-type: none"> <li>Works collaboratively to design, develop, publish, and present multimedia projects that effectively communicate information and ideas about the curriculum to authentic audiences.</li> </ul>
<b>Ethical Behavior in Use of Information</b>	<ul style="list-style-type: none"> <li>Abides by the Acceptable Use Policy in all respects.</li> <li>Observes Internet safety procedures including safeguarding personal information and equipment.</li> <li>Uses programs and Internet sites responsibly, efficiently, and ethically.</li> <li>Takes notes by paraphrasing, summarizing, or selecting short segments to quote.</li> </ul>	<ul style="list-style-type: none"> <li>Analyzes the consequences and costs of hacking, spamming, consumer fraud, virus setting, intrusion and other unethical uses of information and communication technology and identifies ways for addressing these risks.</li> </ul>	<ul style="list-style-type: none"> <li>Understands the concept and consequences of plagiarism.</li> <li>Demonstrates awareness of fair use guidelines and acquires permission from creator when necessary.</li> </ul>	<ul style="list-style-type: none"> <li>Extends respect for intellectual property rights and copyright by crediting sources of ideas as well as directly quoted material.</li> </ul>



# Grade-By-Grade

## *Information Fluency*

### *Benchmark Skills*

These documents, one each for kindergarten through twelfth grade, are the Information Fluency Benchmark Skills from the previous grade-span documents that have been separated into each grade level. These documents will be most helpful for specific grade-level planning by librarians and classroom teachers.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade K

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### ***INQUIRY PROCESS***

##### ***Connect***

- Identifies one or two key words about a topic, problem or question with guidance from the librarian.
- **Connects ideas to own interests.**

##### ***Wonder***

- Formulates questions related to listening activities.

##### ***Investigate***

- Uses ABC arrangement of picture books to locate materials.
- **Understands the basic organizational structure of books.**
- **Distinguishes between fiction and nonfiction resources.**
- Uses materials provided to find answers to questions posed.

##### ***Construct***

- **Demonstrates simple organizational skills such as sorting and categorizing.**

##### ***Express***

- **Presents facts and simple answers to questions.**

##### ***Reflect***

- **Identifies own strengths and sets goals for improvement.**

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade K

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Retells stories with the correct sequence of events.
- Retells a story using words and pictures.
- Makes predictions about what will happen next in a story.
- Uses illustrations to draw meaning from a story.

#### PERSONAL EXPLORATION

- Requests/chooses materials related to personal interests.
- Reads, views, and listens to a variety of fiction and nonfiction for enjoyment and information.

#### MOTIVATED, INDEPENDENT LEARNING

- Recognizes the works of a single author.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Begins to associate use of the library with respect for rules and procedures.
- Respects the ideas of others by listening and raising hands before speaking.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Works collaboratively with a small group using technology for research to meet information needs.
- Respects the ideas of others.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

Introduces stories crediting author and illustrator.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 1

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### **INQUIRY PROCESS**

##### **Connect**

- Shares what is known about the general topic to elicit and make connections to prior knowledge.
- Restates/retells and asks questions about the topic, problem or question with guidance.

##### **Wonder**

- Adds to K-W-L chart constructed by class by helping develop questions for W – Wonder.

##### **Investigate**

- Demonstrates the ability to use the library and check out books.
- Recognizes that nonfiction resources in the library are organized by categories and begins to associate the Dewey numbers with areas of interest.
- **Recognizes that fiction and picture books are organized by the author's last name in A-B-C order.**
- Recognizes the purpose of the online catalog to locate materials.
- Selects and uses appropriate sources with guidance, including picture dictionaries and beginning encyclopedias, to answer questions.
- Interprets information represented in pictures, illustrations and simple charts and verbalizes the main idea.
- **Distinguishes between fact and opinion.**
- **Finds facts and briefly summarizes them via writing, drawing, or verbalization to answer research questions.**

##### **Construct**

- **Draws a conclusion about the main idea with guidance.**
- Completes the L portion of the K-W-L chart with what new ideas were learned.

##### **Express**

- Uses writing process to develop expression of new understandings.
- Uses format chosen by the teacher or librarian.

##### **Reflect**

- Asks, "What do I wonder about now?"
- Identifies own strengths and sets goals for improvement.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 1

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Identifies plot, characters, times, and places in a story.
- Draws and shares conclusions about main idea of a story.
- Discusses favorite books and authors through exposure to author studies and series books.
- Expresses feelings about favorite books through pictures and words.
- Distinguishes between what is factual and imaginary.

#### PERSONAL EXPLORATION

- Recognizes and identifies personal interests through reading or listening to stories.

#### MOTIVATED, INDEPENDENT LEARNING

- Selects books, poems, or media based on teacher-selected criteria or personal preference.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Listens to multicultural texts from various genres.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Contributes to a group media project to communicate ideas to classmates, families, and others.
- Practices giving positive feedback and giving compliments as modeled by librarian.
- Works in groups to create and interpret charts of information gathered through research.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

- Understands that it is wrong to copy from an author or another student.
- Works cooperatively with peers, family members, and others when using technology in the classroom or at home.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 2

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### INQUIRY PROCESS

##### **Connect**

- Recognizes that questions can be answered by finding information.
- Identifies the overall "big picture" idea by stating it orally or drawing a picture.

##### **Wonder**

- Asks "I wonder" questions about the research topic.

##### **Investigate**

- Uses ABC arrangement of fiction books to locate materials.
- **Follows a modeled inquiry process during each visit to the library to do research.**
- Uses online encyclopedias, magazines databases, and other technology resources with guidance.
- Selects and uses appropriate sources with guidance, including dictionaries, periodicals, maps, and globes, to answer questions.
- **Writes, draws, or verbalizes the main idea and supporting details.**
- Uses simple note-taking strategies as demonstrated by librarian/teacher (e.g., copying words or phrases).

##### **Construct**

- **Compares new ideas with what was known at the beginning of the inquiry.**

##### **Express**

- Begins to understand concept of "audience."
- **Presents information in a variety of ways (e.g., art, music, poetry, movement, verbally, and/or written language).**
- Identifies the names of sources used.
- Uses technology tools chosen by teacher or librarian to create written products.

##### **Reflect**

- Uses authentic assessment rubrics modeled by librarian.
- **Identifies own strengths and sets goals for improvement.**



# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 2

### **STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH**

***"We are explorers."***

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### **READER/VIEWER RESPONSE AND EXPRESSION**

- Compares characters in two different stories, or plots in two stories by the same author.

#### **PERSONAL EXPLORATION**

- Expresses own ideas through creating products in a variety of formats.

#### **MOTIVATED, INDEPENDENT LEARNING**

- Begins to recognize that different genres require different reading strategies.
- Demonstrates comprehension of stories read independently and stories read aloud.

### **STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY**

***"We are citizens."***

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### **IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY**

- Reads multicultural texts from various genres.
- Compares folktales or stories from different cultures.
- Returns materials when they are due so that others have access.
- Recognizes the right to express own opinion in an appropriate manner.

#### **EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING**

- Uses online tools to read, send, or post electronic messages to peers, experts, and family members with guidance.
- Uses feedback from others to create individual and collaborative projects.

#### **ETHICAL BEHAVIOR IN USE OF INFORMATION**

Credits sources by citing author and title.

- Takes notes to answer research questions by writing down words and phrases and drawing pictures from sources, but not copying whole sentences.
- Understands acceptable and unacceptable computer usage according to the Acceptable Use Policy related to use of technology.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 3

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### INQUIRY PROCESS

##### ***Connect***

- Connects ideas in texts to own interests.
- States what is known about the problem or question and makes connections to prior knowledge.

##### ***Wonder***

- Formulates questions about the topic with guidance.
- Uses prior knowledge and understanding of overall topic to make predictions about what the new information will reveal.

##### ***Investigate***

- **Identifies the ten major Dewey areas and what main topics are included in each.**
- Locates nonfiction material at appropriate reading level.
- **Searches the online catalog (author, title, and subject) with assistance to locate materials.**
- **Uses bookmarked Websites to find appropriate information.**
- Selects and uses multiple appropriate print, nonprint, electronic and human sources (e.g., thesauri, general encyclopedias, and periodical databases) to answer questions.
- Uses at least two sources for research projects.
- Questions text during reading or listening.
- Uses simple notetaking strategies (e.g., graphic organizers).
- Identifies and uses the organizational structures of a nonfiction book (table of contents, index and glossary) to locate information.

##### ***Construct***

- Uses a variety of strategies to determine important ideas.
- **States the main idea.**
- Organizes information using a teacher provided tool.

##### ***Express***

- Communicates new understandings through combining, predicting, illustrating and constructing.
- **Chooses the format for the product based on personal preference or uses format chosen by the teacher or librarian.**
- Uses visuals and multimedia to communicate meaning.
- **Presents information clearly so that main points are evident.**

##### ***Reflect***

- Identifies and evaluates the important features for a good product.
- **Assesses and revises own work with guidance.**
- **Identifies own strengths and sets goals for improvement.**
- Asks "What about this topic do I want to learn more about?"

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 3

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Discusses problems and solutions in a work.
- Selects both "just right" materials and challenging materials on a regular basis.

#### PERSONAL EXPLORATION

- Gathers information related to personal interests.
- Understands basic cybersafety.

#### MOTIVATED, INDEPENDENT LEARNING

- Begins to explore and examine the various genres based on personal interests.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Demonstrates responsibility and awareness that library resources are to be shared among the entire school community.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Shows respect for and responds to the ideas of others.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

Observes Internet safety procedures including safeguarding personal information.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 4

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

*"We are thinkers."*

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### INQUIRY PROCESS

##### Connect

- Generates a list of key words for a research-based project with guidance.

##### Wonder

- Asks questions to clarify topics or details.
- Predicts answers to inquiry questions based on background knowledge and beginning observation or experience.

##### Investigate

- Uses selected search engines to find appropriate information.
- Uses pre-selected primary sources to gather information.
- Uses pre-selected Web resources to locate information.
- Selects and uses multiple appropriate print, nonprint, electronic and human sources (e.g., almanacs, indexes, specialized dictionaries and encyclopedias, and databases) to answer questions.
- Uses skim/scan to locate information that is appropriate to age and ability level.
- Distinguishes between fact and opinion.
- Uses various notetaking strategies (e.g., highlighting, graphic organizers).
- **Paraphrases, summarizes information that answers research questions.**
- Identifies and uses the organizational structures of a nonfiction book (bibliography and appendix) to locate information.
- Follows a model or template provided to complete inquiry project and follows a timeline.

##### Construct

- Identifies facts and details that support main ideas.
- Notes similarities and differences in information from two different sources.
- **Uses common organizational patterns (chronological order, main idea with supporting details) to organize information.**
- Draws a conclusion about the main idea.

##### Express

- Uses pre-writing to brainstorm ideas for most effective way to present conclusions.
- Drafts the presentation/product.
- Understands the concept of "audience"; determines audience before creating product.

##### Reflect

- Identifies and evaluates the important features for a good product.
- Assesses and revises own work with guidance.
- Identifies own strengths and sets goals for improvement.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 4

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Identifies story elements in various fiction genres
- Uses evidence from stories to discuss characters, setting, plot, time, and place.
- Makes predictions and inferences about events and characters.

#### PERSONAL EXPLORATION

- Seeks information about personal interests by using the library catalog to find materials to read.
- Understands basic netiquette.

#### MOTIVATED, INDEPENDENT LEARNING

- Recognizes features of various genres and uses different reading strategies for understanding.
- Selects appropriate print and electronic materials on an individual level.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Recognizes the right to express own opinion in an appropriate manner, even when the opinion differs from the ideas of others.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Restates ideas of others accurately and adds own perspective.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

Respects privacy of others (e-mail, files, passwords, sites)

- Understands the basic concept of plagiarism as copying the work of others.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 5

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### INQUIRY PROCESS

##### **Connect**

- Uses sources to acquire background information and brainstorms ideas for further inquiry.

##### **Wonder**

- Assesses questions to determine which can be answered by simple facts, which cannot be answered, and which would lead to an interesting inquiry.
- Forms tentative thesis about main idea with guidance.

##### **Investigate**

- Selects and uses multiple appropriate print, nonprint, electronic, and human sources to answer questions.
- Uses navigation tools of a Website to find information.
- Uses prior knowledge and experiences to understand new facts and ideas.
- Interprets information taken from maps, graphs, charts and other visuals.
- Evaluates print and electronic information for usefulness, relevance, and accuracy.
- Determines important details.
- Uses various notetaking strategies (e.g., outlining, underlining, bulleted lists, highlighting, graphic organizers).
- Uses software (e.g., word processing, graphic organizing) to record and organize information.
- Identifies and uses the organizational structures of a nonfiction book (preface, foreword and introduction) to locate information.

##### **Construct**

- Makes inferences with guidance.
- Forms opinion and uses evidence from text to back it up.
- Organizes notes and ideas and develops an outline or graphic organizer.
- Actively listens to and restates others' ideas and contributes own ideas.

##### **Express**

- Uses writing process to develop expression of new understandings.
- Cites all sources used according to model provided by teacher.
- Uses a variety of technology tools chosen by librarian or teacher to create products.
- Modifies and revises own work based on feedback from teacher and others.
- Checks for correctness and completeness.

##### **Reflect**

- Identifies and evaluates the important features for a good product.
- Assesses and revises own work with guidance.
- Identifies own strengths and sets goals for improvement.
- Relies on feedback to figure out how to improve product and process.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 5

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Draws and shares conclusions about the theme or focus of a work.
- Compares and contrasts story elements in two literary works.

#### PERSONAL EXPLORATION

- Reads a variety of fiction and nonfiction in different formats to fulfill reading goals and offer enjoyment and information.

#### MOTIVATED, INDEPENDENT LEARNING

- Understands literal meanings and can identify the main points and supporting details.
- Develops basic search skills for online and database searching related to personal interests.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Considers multiple viewpoints and cultural perspectives

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Works collaboratively using technology for research to meet information needs.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

- Discusses responsible use and misuse of technology and describes personal consequences of inappropriate use of information and technology.
- Credits all sources properly with title, author, and page numbers.



# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 6

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

*"We are thinkers."*

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### INQUIRY PROCESS

##### Connect

- Finds areas of passion or interest within topics of study.
- Identifies key words and ideas that appear in background information and class conversation.

##### Wonder

- Recognizes characteristics of good questions.
- Determines what information is needed to support the investigation and answer the questions.

##### Investigate

- Recognizes the organization and use of special sections in the library (e.g., reference, graphic novels, paperbacks).
- Follows a complete research plan and stays on a timeline.
- **Uses online catalog independently to locate specific books, get classification numbers, and browse the shelves.**
- Participates in supervised use of search engines and pre-selected Web resources to access appropriate information for research.
- Evaluates electronic and print information to determine whether it is inaccurate or misleading.
- **Uses both primary and secondary sources.**
- Summarizes information that answers research questions.
- Differentiates between important and unimportant details.
- Takes notes using one or more of a variety of notetaking strategies.
- Relates new information to prior knowledge.

##### Construct

- Makes inferences based on explicit information in text.
- Organizes notes and ideas and develops an outline or graphic organizer using both print and electronic tools.
- **Combines information and weighs evidence to draw conclusions and create meaning.**

##### Express

- Uses pre-writing to discover alternate ways to present conclusions.
- Drafts the presentation/product tailored to the audience.
- **Presents conclusions and supporting facts in a variety of ways.**

##### Reflect

- Assesses own work and begins to develop own revision process.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 6

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

*Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.*

#### READER/VIEWER RESPONSE AND EXPRESSION

- Recognizes similarities and differences among authors writing on the same theme.
- Participates in literary discussions and book clubs.
- Compares and contrasts different media representations of the same story.

#### PERSONAL EXPLORATION

- Identifies and pursues personal interests by reading widely in diverse formats and media.

#### MOTIVATED, INDEPENDENT LEARNING

- Reads a variety of genres in print and electronic format.
- Reads independently.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

*Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.*

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Demonstrates tolerance for different opinions.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Encourages team members to share ideas and opinions.
- Works collaboratively with peers to use technology for research to meet information needs.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

Discusses privacy and cyberbullying related to safe and responsible use of information and communication technology.

- Abides by the Acceptable Use Policy by accessing only appropriate information and using technology responsibly.
- Understands the concept of plagiarism and the importance of paraphrasing.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 7

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### INQUIRY PROCESS

##### ***Connect***

- States and verifies what is known about the problem or question and makes connections to prior knowledge.
- Uses multiple sources to acquire background information and brainstorms ideas for further inquiry.

##### ***Wonder***

- Writes questions independently based on key ideas or areas of focus.
- Analyzes and evaluates what is known, observed or experienced to form tentative thesis or hypothesis.
- Determines what resources will most likely offer quality information.

##### ***Investigate***

- Uses the categorization of materials within Dewey Areas to locate resources and browse for additional materials.
- Uses technology resources such as online encyclopedias, online databases, and Web subject directories to locate information on assigned topics in the curriculum.
- Uses organizational systems and electronic search strategies (key words, subject headings) to locate appropriate resources.
- Evaluates and paraphrases information that answers research questions.
- Evaluates quality of electronic and print information for usefulness, currency, authority and accuracy.
- Uses both facts and opinions responsibly by identifying and verifying them.
- Uses table of contents, index, chapter and section headings, topic sentences, and summary sentences to locate information and select main ideas.
- Uses the structure and navigation tools of a Website to find the most relevant information.

##### ***Construct***

- Uses common organizational patterns (chronological order, cause and effect, compare/contrast) to organize information in order to draw conclusions.
- Interprets information and ideas by defining, classifying, and inferring.
- Forms opinions and judgments backed up by supporting evidence.
- Questions the differences between sources and seeks additional sources to resolve.

##### ***Express***

- Publishes final product for a particular audience and purpose.
- Cites all sources used according to local style formats.

##### ***Reflect***

- Uses established criteria or collaborates with classmates and teacher to develop criteria for assessment.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 7

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Recognizes the creator's point of view; recognizes that there are diverse points of view that lead to different insights.
- Participates in literary discussions and book clubs.

#### PERSONAL EXPLORATION

- Independently locates and selects information for personal, hobby, or vocational interests.

#### MOTIVATED, INDEPENDENT LEARNING

- Reads independently.
- Selects print and nonprint materials based on personal interests, knowledge of authors, and reading level.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Considers culturally divergent and opposing viewpoints on topics.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Asks questions of others in a group to elicit their information and opinions.
- Uses interactive multimedia tools to exchange data collected and to learn curricular concepts by communicating with peers, experts, and other audiences.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

- Discusses security, piracy and downloading related to safe and responsible use of information and communication technology.
- Uses programs and Internet sites responsibly, efficiently, and ethically.
- Observes Internet safety procedures, including safeguarding personal information and equipment.
- Takes notes by paraphrasing or using quotation marks when using someone else's words.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 8

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### **INQUIRY PROCESS**

##### **Connect**

- **Revises the question or problem as needed to arrive at a manageable topic for inquiry.**
- Expresses the big idea and the relation of own topics of interest to that idea through a mind map using pictures and words.

##### **Wonder**

- **Refines questions to guide the search for different types of information (e.g., overview, big-idea, specific detail, cause and effect, comparison).**
- Plans inquiry to test hypothesis or validate thesis.

##### **Investigate**

- **Uses different formats (e.g., books, Websites, subscription databases, multimedia, graphs, charts, maps and diagrams) as sources of information.**
- Seeks balanced view by using diverse sources to access appropriate material.
- Selects information based on authority and point of view.
- **Recognizes the effect of different perspectives and points of view on information.**
- **Recognizes that own point of view influences the interpretation of information.**
- Identifies misconceptions and revises ideas as new information is gained.

##### **Construct**

- Analyzes disparate points of view discovered in different sources.
- **Draws conclusions based on explicit and implied information.**
- Compares information found to tentative thesis or hypothesis; revisits and revises thesis/hypothesis as appropriate.

##### **Express**

- **Creates products for authentic reasons and audiences.**
- Uses two or three strategies to revise product based on self-assessment, teacher feedback, and peer feedback.
- Identifies and uses a variety of technology tools, including Web-based interactive tools, to organize information, create a product, and enhance communication.

##### **Reflect**

- **Identifies own strengths and sets goals for improvement.**

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 8

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Creates and shares reading experiences and responses in a variety of ways and formats.
- Participates in literary discussions and book clubs.

#### PERSONAL EXPLORATION

- Experiments with various types of multimedia software and online applications for artistic and personal expression.

#### MOTIVATED, INDEPENDENT LEARNING

- Reads independently.
- Understands literal and implied meanings and can place the meaning in a conceptual framework.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Understands the concept of freedom of expression and the role that it plays in democracy.
- Compares online resources to seek global perspective.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Helps to organize and integrate contributions of all group members into projects.
- Works collaboratively to develop, publish, and present projects involving 1-2 media that effectively communicate information and ideas about the curriculum to authentic audiences.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

Discusses copyright related to safe and responsible use of information and communication technology.

- Gathers and uses information ethically by citing all sources.
- Credits sources by using correct bibliographic format.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 9

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### INQUIRY PROCESS

##### Connect

- Reads background information to discover the complexities of the problem or question and brainstorms ideas for further inquiry.
- **Identifies key words, concepts, and synonyms, both stated and implied, for topic and uses them to further research.**
- **Develops a schema or mind map to express the big idea and the relationships among supporting ideas and topics of interest.**

##### Wonder

- Focuses the purpose of the research by formulating specific questions to be answered.
- Determines the kind of information needed to investigate the complexities of the topic and whether different points of view will be important.

##### Investigate

- Brainstorms ideas for further information.
- Uses search strategies (Boolean operators, synonyms and relational searching) to broaden and narrow searches and locate appropriate resources.
- Uses technology resources such as the online catalog, online encyclopedias, online databases, Web subject directories, and links from valid Web sites to locate primary and secondary information on topics of inquiry.
- Uses a variety of search engines to do advanced searching.
- Seeks and uses many different sources in a variety of formats to obtain balanced and complex information and to fill information needs effectively.
- Adjusts search strategies by comparing information gathered with the problem or question.
- Analyzes maps, pictures, charts, graphs, and other information presented visually to determine main ideas and supporting details.
- **Takes notes using one or more of a variety of notetaking strategies, including reflecting on the information (e.g., graphic organizers, two-column notes).**

##### Construct

- Combines ideas and information to develop and demonstrate new understanding.
- **Organizes information independently, deciding the structure based on the relationships among ideas and general patterns discovered.**
- Understands and builds on the ideas of others.

##### Express

- Presents conclusions to answer the question or problem.
- Uses visuals, electronic tools and multimedia to communicate meaning.

##### Reflect

- **Identifies own strengths and sets goals for improvement.**



# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 9

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Shares reading experiences and expresses own ideas through creative products in a variety of formats.

#### PERSONAL EXPLORATION

- Reads for pleasure, to learn, to solve problems, and to explore new ideas beyond the required curriculum.

#### MOTIVATED, INDEPENDENT LEARNING

- Reads a variety of fiction and nonfiction materials in various formats.
- Uses print and nonprint resources for information and personal needs; actively seeks answers to questions.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Uses multiple resources as a general rule to seek a balanced and global perspective.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Works with others to create and evaluate projects that communicate complex information and ideas and respectfully integrate the contributions of all group members.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

Abides by the Acceptable Use Policy in all respects.

- Observes Internet safety procedures including safeguarding personal information and equipment.
- Uses programs and Internet sites responsibly, efficiently, and ethically.
- Takes notes by paraphrasing, summarizing, or selecting short segments to quote.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 10

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### INQUIRY PROCESS

##### **Connect**

- **Develops and refines the topic, problem, or question independently to arrive at a worthy and manageable topic for inquiry.**
- Maintains a list of effective search terms throughout the process of inquiry.

##### **Wonder**

- **Refines questions to provide a framework for the inquiry and to fulfill the purpose of the research** (e.g., questions to lead to historical context and interpretation; questions to elicit accurate facts about scientific problem or issue).

##### **Investigate**

- Uses specialized reference materials to find specific and in-depth information.
- **Conducts advanced Web searches using Boolean logic and other sophisticated search functions.**
- Uses text structures to derive relationships among ideas and deeper or more subtle meaning (signal words; patterns such as cause/effect, comparison, sequence; foundational vs. detailed information).
- Evaluates information from a variety of sources for accuracy, appropriateness, validity and comprehensiveness.
- Recognizes statements that can be verified.
- Uses collaborative and independent digital tools to record and organize information.
- Pursues a balanced perspective of fact, opinion, and different points of view.

##### **Construct**

- Critically examines and analyzes relevant information from a variety of sources to discover relationships among ideas.
- Organizes notes and ideas using both print and electronic tools to create the most appropriate organizational pattern to express the connections and patterns.
- **Draws clear and appropriate conclusions supported by evidence and examples.**

##### **Express**

- Drafts the presentation/product to present an argument, point of view, interpretation, or new model most effectively with supporting evidence.
- **Cites all sources used according to standard style formats.**
- Identifies and uses a variety of technology tools, including Web-based interactive tools, to organize information, create a product, and enhance communication with a real world application.

##### **Reflect**

- Identifies and evaluates the important and subtle features for an effective product.
- **Records individual experience of the inquiry process – the hardest part, best part, skills learned, insights experienced, etc. – with suggestions for future improvements.**

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 10

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

#### *"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### **READER/VIEWER RESPONSE AND EXPRESSION**

- Participates in and leads literary discussions and book clubs.

#### **PERSONAL EXPLORATION**

- Seeks and locates information about personal interests and usually finds it independently, using the same criteria and strategies used for academic information seeking.

#### **MOTIVATED, INDEPENDENT LEARNING**

- Considers alternative perspectives and evaluates differing points-of-view.
- Connects the meaning from one digital text to another to gain a comprehensive understanding about a topic of interest.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

#### *"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### **IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY**

- Seeks alternative sources of information and respects the guidelines for access in all environments (public libraries, museums, cultural institutions, agencies).

#### **EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING**

- Seeks ideas and opinions from others, including experts in the field.
- Uses online tools to collaborate, publish and interact with peers, experts and other audiences.

#### **ETHICAL BEHAVIOR IN USE OF INFORMATION**

- Analyzes the consequences and costs of hacking, spamming, consumer fraud, virus setting, intrusion and other unethical uses of information and communication technology and identifies ways for addressing these risks.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 11

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### ***INQUIRY PROCESS***

##### ***Connect***

- Verifies the accuracy of what is known about the problem or question.

##### ***Wonder***

- Plans inquiry to systematically test hypothesis or to gather evidence to validate thesis.

##### ***Investigate***

- Pursues a balanced perspective by evaluating information based on authority, accuracy, point of view, and reliability.
- Uses the organizational features of a book as well as abstracts, tables, charts and first and last chapters to locate main ideas, specific supporting evidence, and a balanced perspective.
- Recognizes degrees of bias (from slightly slanted point of view to heavily slanted propaganda).
- Recognizes competing interpretations of historical events and issues and the reasons for those differences.
- Evaluates the authority of a source by assessing the credentials and reputation of the author, creator and publisher.
- Evaluates, paraphrases, summarizes, and interprets information that answers research questions and gives an accurate picture of the research topic.
- Recognizes that even accurate facts can be misleading if relevant facts are omitted or if context is not provided.
- Categorizes information; adds new categories as necessary; explores connections among categories.

##### ***Construct***

- Analyzes different points of view and determines best supported point of view by sorting and sifting evidence.
- **Presents different perspectives with evidence for each.**
- Identifies and addresses previously held misconceptions.

##### ***Express***

- **Chooses the most appropriate format, tone and language to communicate ideas clearly in real world formats to different audiences.**
- Publishes final product for an authentic audience and real world application.

##### ***Reflect***

- Assesses and revises own work using own revision process.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 11

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Evaluates accuracy and authenticity of fiction works by comparing to nonfiction works on same subject.

#### PERSONAL EXPLORATION

- Applies technology productivity tools to meet personal needs and establish a responsible online personal presence.

#### MOTIVATED, INDEPENDENT LEARNING

- Selects print and nonprint materials based on personal interests, knowledge of authors, reading level and aspirations for future growth and career.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Considers all sides and cultural contexts of issues and evaluates them carefully, particularly on controversial or culturally based topics.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Considers all sides and cultural contexts of issues and evaluates them carefully, particularly on controversial or culturally based topics.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

Understands the concept and consequences of plagiarism.

- Demonstrates awareness of fair use guidelines and acquires permission from creator when necessary.

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 12

### STANDARD 1: USING INFORMATION TO BUILD UNDERSTANDING

***"We are thinkers."***

Independent learners ask authentic questions and access, evaluate and use information effectively to develop new understandings.

#### INQUIRY PROCESS

##### **Connect**

- Explores problems or questions for which there are multiple answers or no “best” answer.

##### **Wonder**

- Uses prior knowledge, understanding of essential ideas and questions, and comprehensive background information to make predictions about specific information needed to answer questions and about the effectiveness of potential sources.

##### **Investigate**

- Seeks resources with diverse opinions and points of view and evaluates them carefully, particularly on controversial, historical or culturally based topics.
- Counters the effect of bias on the accuracy and reliability of information by actively pursuing a balanced perspective.
- **Challenges ideas in text and makes notes of questions to pursue in additional sources.**
- Independently recognizes gaps in information (based on the complexity of the problem or question).
- Extends search beyond readily available sources to ensure accuracy and comprehensiveness.
- Maintains an open attitude about new areas of the subject that were previously unknown or overlooked.

##### **Construct**

- **Builds a conceptual framework by synthesizing ideas gathered from multiple sources.**
- Changes own ideas based on the ideas of others.
- **Develops own point of view and supports with evidence.**

##### **Express**

- Communicates new understandings through designing, inventing, composing, transplanting and constructing.
- **Evaluates own product and process throughout the work and uses self-assessment, teacher feedback, and peer feedback to make revisions when necessary.**

##### **Reflect**

- Asks, “What about this topic is personally interesting to me and important? What about this topic do I want to pursue when I have an opportunity? Does this topic have implications for future career or college choices?”

# Grade-By-Grade Information Fluency Benchmark Skills

## Grade 12

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

*"We are explorers."*

Independent learners respond to and create literary and artistic expressions, use effective strategies for personal exploration of ideas, and read on their own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

- Explores real-world genres as well as favorite genres and authors (movie reviews, editorials, consumer reports, game tips and strategies, career information).

#### PERSONAL EXPLORATION

- Uses information to address personal issues and investigate opportunities for the future

#### MOTIVATED, INDEPENDENT LEARNING

- Reads/listens to works of international and multicultural authors.
- Understands text on both a literal and an abstract level.

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

*"We are citizens."*

Independent learners contribute to the learning community by seeking multiple perspectives, sharing their understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

- Can explain First Amendment rights and knows the process available to defend those rights.

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

- Works collaboratively to design, develop, publish, and present multimedia projects that effectively communicate information and ideas about the curriculum to authentic audiences.

#### ETHICAL BEHAVIOR IN USE OF INFORMATION

Extends respect for intellectual property rights and copyright by crediting sources of ideas as well as directly quoted material.

New York City Department of Education/ Office of Library Services  
New York City School Library System

# Information Fluency Continuum

## K-12 Priority Benchmark Skills

The information and inquiry skills  
required for in-depth learning

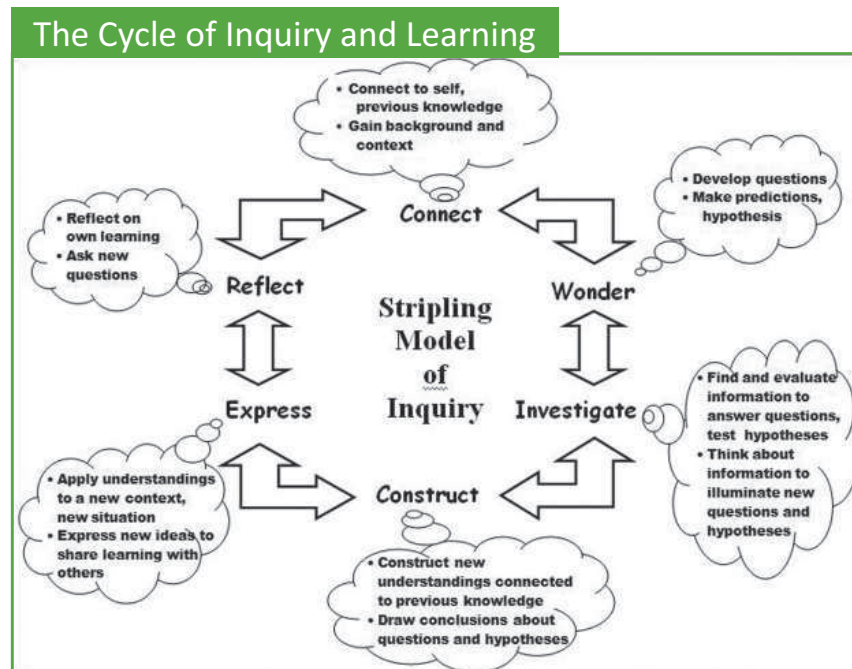




## “Priority Benchmark Skills for Information Fluency and Inquiry

Inquiry is a fundamental building block of teaching and learning that empowers students to follow their sense of wonder into new discoveries and insights about the way the world works. The empowered learner calls upon information/inquiry skills to connect with what he or she knows, ask intriguing questions about what is not known, investigate the answers, construct new understandings, and communicate to share those understandings with others.

Students need to use the skills of inquiry to learn. The Cycle of Inquiry and Learning provides a framework for active learning and the formation of new understandings.



The information and inquiry skills required for in-depth learning must follow a coherent development spiral of instruction and practice throughout the years of schooling, K–12 and beyond, to enable all of our children to become independent learners.

A collaborative approach by the librarian and the classroom teacher is the most effective way to teach information fluency/inquiry skills and strategies.

## Grade K

**The information-literate student in Grade K has developed the following skills:**

- Connects ideas to own interests
- Understands the basic organizational structure of books
- Distinguishes between fiction and nonfiction resources
- Demonstrates simple organizational skills such as sorting and categorizing
- Presents facts and simple answers to questions
- Identifies own strengths and sets goals for improvement

## Grade 1

**The information-literate student in Grade 1 has developed the following skills:**

- Shares what is known about the general topic to elicit and make connections to prior knowledge
- Recognizes that fiction and picture books are organized by the author's last name in A-B-C order
- Distinguishes between fact and opinion
- Finds facts and briefly summarizes them via writing, drawing, or verbalization to answer research questions
- Draws a conclusion about the main idea with guidance
- Asks, "What do I wonder about now?"
- Identifies own strengths and sets goals for improvement

## Grade 2

**The information-literate student in Grade 2 has developed the following skills:**

- Recognizes that questions can be answered by finding information
- Asks "I wonder" questions about the research topic
- Follows a modeled inquiry process during each visit to the library to do research
- Writes, draws, or verbalizes the main idea and supporting details
- Compares new ideas with what was known at the beginning of the inquiry
- Presents information in a variety of ways (e.g., art, music, poetry, movement, verbally, and/or written language)
- Identifies own strengths and sets goals for improvement

## Grade 3

**The information-literate student in Grade 3 has developed the following skills:**

- Identifies the ten major Dewey areas and what main topics are included in each
- Searches the online catalog (author, title, and subject) with assistance to locate materials
- Uses bookmarked Websites to find appropriate information
- States the main idea
- Chooses the format for the product based on personal preference or uses format chosen by the teacher or librarian
- Presents information clearly so that main points are evident
- Assesses and revises own work with guidance
- Identifies own strengths and sets goals for improvement

## Grade 4

**The information-literate student in Grade 4 has developed the following skills:**

- Generates a list of key words for a research-based project with guidance
- Asks questions to clarify topics or details
- Predicts answers to inquiry questions based on background knowledge and beginning observation or experience
- Uses selected search engines to find appropriate information
- Paraphrases, summarizes information that answers research questions
- Identifies facts and details that support main ideas
- Uses common organizational patterns (chronological order, main idea with supporting details) to organize information
- Identifies and evaluates the important features for a good product
- Assesses and revises own work with guidance
- Identifies own strengths and sets goals for improvement

## Grade 5

**The information-literate student in Grade 5 has developed the following skills:**

- Uses sources to acquire background information and brainstorms ideas for further inquiry
- Assesses questions to determine which can be answered by simple facts, which cannot be answered, and which would lead to an interesting inquiry
- Selects and uses multiple appropriate print, nonprint, electronic, and human sources to answer questions
- Uses navigation tools of a Website to find information
- Evaluates print and electronic information for usefulness, relevance, and accuracy
- Uses various notetaking strategies (e.g., outlining, underlining, bulleted lists, highlighting, graphic organizers)
- Forms opinion and uses evidence from text to back it up
- Cites all sources used according to model provided by teacher
- Modifies and revises own work based on feedback from teacher and others
- Assesses and revises own work with guidance
- Identifies own strengths and sets goals for improvement

## Grade 6

**The information-literate student in Grade 6 has developed the following skills:**

- Uses online catalog independently to locate specific books, get classification numbers, and browse the shelves
- Uses both primary and secondary sources
- Combines information and weighs evidence to draw conclusions and create meaning
- Presents conclusions and supporting facts in a variety of ways

## Grade 7

**The information-literate student in Grade 7 has developed the following skills:**

- States and verifies what is known about the problem or question and makes connections to prior knowledge
- Analyzes and evaluates what is known, observed or experienced to form tentative thesis or hypothesis
- Evaluates quality of electronic and print information for usefulness, currency, authority and accuracy
- Uses both facts and opinions responsibly by identifying and verifying them
- Uses common organizational patterns (chronological order, cause and effect, compare/contrast) to organize information in order to draw conclusions
- Interprets information and ideas by defining, classifying, and inferring
- Cites all sources used according to local style formats
- Uses established criteria or collaborates with classmates and teacher to develop criteria for assessment

## Grade 8

**The information-literate student in Grade 8 has developed the following skills:**

- Revises the question or problem as needed to arrive at a manageable topic for inquiry
- Refines questions to guide the search for different types of information (e.g., overview, big idea, specific detail, cause and effect, comparison)
- Uses different formats (e.g., books, Websites, subscription databases, multimedia, graphs, charts, maps and diagrams) as sources of information
- Recognizes the effect of different perspectives and points of view on information
- Recognizes that own point of view influences the interpretation of information
- Draws conclusions based on explicit and implied information
- Creates products for authentic reasons and audiences
- Identifies own strengths and sets goals for improvement



## Grade 9

**The information-literate student in Grade 9 has developed the following skills:**

- Identifies key words, concepts, and synonyms, both stated and implied, for topic and uses them to further research
- Develops a schema or mind map to express the big idea and the relationships among supporting ideas and topics of interest
- Takes notes using one or more of a variety of notetaking strategies, including reflecting on the information (e.g., graphic organizers, two-column notes)
- Organizes information independently, deciding the structure based on the relationships among ideas and general patterns discovered
- Identifies own strengths and sets goals for improvement

## Grade 10

**The information-literate student in Grade 10 has developed the following skills:**

- Develops and refines the topic, problem, or question independently to arrive at a worthy and manageable topic for inquiry
- Refines questions to provide a framework for the inquiry and to fulfill the purpose of the research
- Conducts advanced Web searches using Boolean logic and other sophisticated search functions
- Draws clear and appropriate conclusions supported by evidence and examples
- Cites all sources used according to standard style formats
- Records individual experience of the inquiry process – the hardest part, best part, skills learned, insights experienced, etc. – with suggestions for future improvements

## Grade 11

**The information-literate student in Grade 11 has developed the following skills:**

- Plans inquiry to systematically test hypothesis or to gather evidence to validate thesis
- Pursues a balanced perspective by evaluating information based on authority, accuracy, point of view, and reliability
- Uses the organizational features of a book as well as abstracts, tables, charts and first and last chapters to locate main ideas, specific supporting evidence, and a balanced perspective
- Presents different perspectives with evidence for each
- Chooses the most appropriate format, tone and language to communicate ideas clearly in real world formats to different audiences

## Grade 12

**The information-literate student in Grade 12 has developed the following skills:**

- Explores problems or questions for which there are multiple answers or no “best” answer
- Challenges ideas in text and makes notes of questions to pursue in additional sources
- Builds a conceptual framework by synthesizing ideas gathered from multiple sources
- Develops own point of view and supports with evidence
- Evaluates own product and process throughout the work and uses self-assessment, teacher feedback, and peer feedback to make revisions when necessary



# New York City School Library System

## INFORMATION FLUENCY CONTINUUM FRAMEWORK

### STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING AND CREATE NEW KNOWLEDGE

**"I am a thinker."**

An independent learner asks authentic questions and accesses, evaluates, and uses information effectively to develop new understandings.

#### INQUIRY PHASE: CONNECT

Connecting to own interests, prior knowledge, and background knowledge

#### INQUIRY PHASE: WONDER

Asking questions, making predictions, forming tentative thesis

#### INQUIRY PHASE: INVESTIGATE

Finding and evaluating information to answer questions

#### INQUIRY PHASE: CONSTRUCT

Constructing new understandings, forming opinions, drawing conclusions

#### INQUIRY PHASE: EXPRESS

Applying new understandings to new context; expressing new ideas to share with others

#### INQUIRY PHASE: REFLECT

Reflecting on own learning; asking new questions

### STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH

**"I am an explorer."**

An independent learner responds to and creates literary and artistic expressions, uses effective strategies for personal exploration of ideas, and reads on his or her own by choice.

#### READER/VIEWER RESPONSE AND EXPRESSION

#### PERSONAL EXPLORATION

#### MOTIVATED, INDEPENDENT LEARNING

### STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY

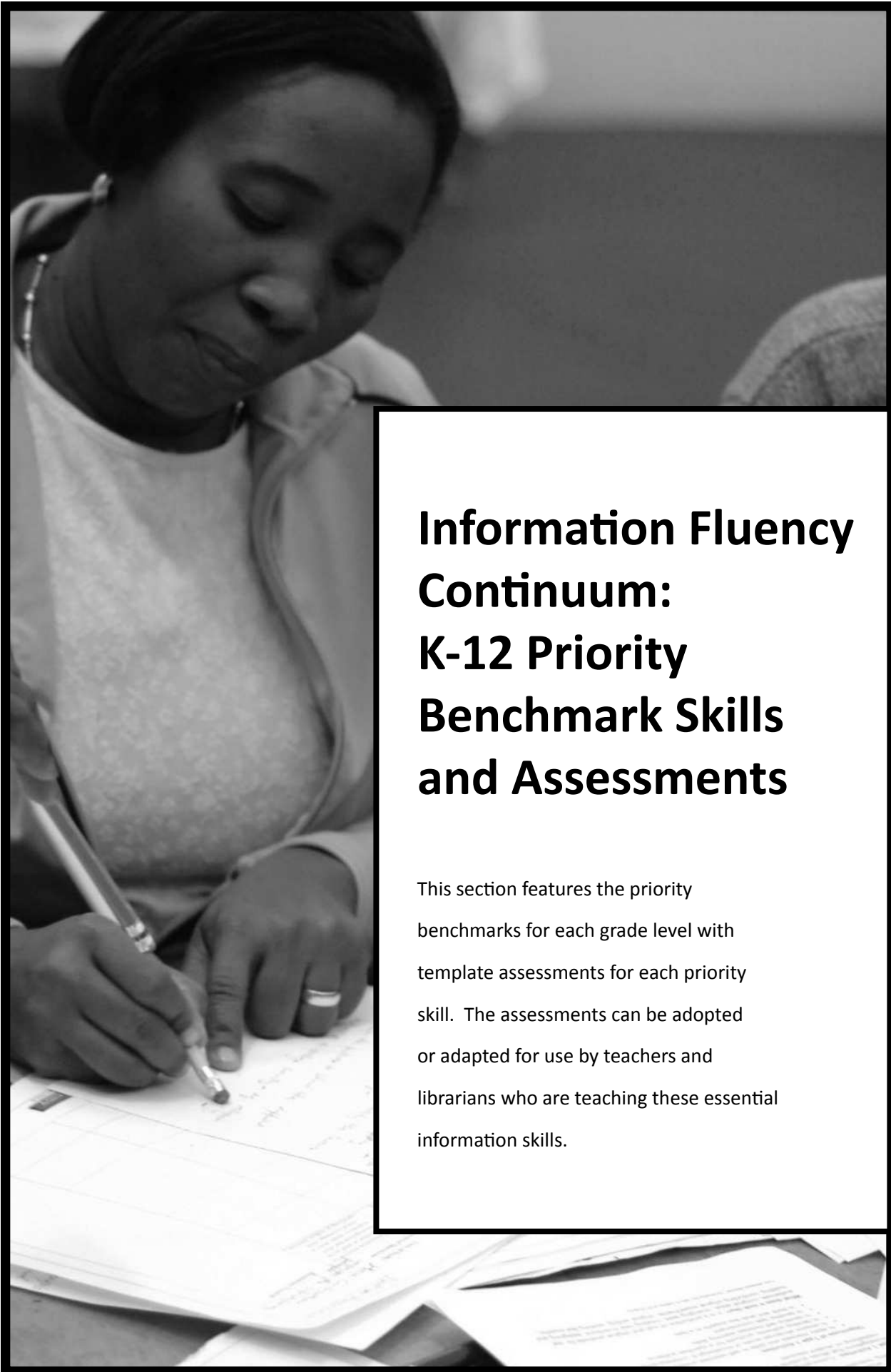
**"I am a citizen."**

An independent learner contributes to the learning community by seeking multiple perspectives, sharing his or her understandings with others, and using information and resources ethically.

#### IMPORTANCE OF INFORMATION TO A DEMOCRATIC SOCIETY

#### EFFECTIVE SOCIAL INTERACTION TO BROADEN UNDERSTANDING

#### ETHICAL BEHAVIOR IN USE OF INFORMATION



## **Information Fluency Continuum: K-12 Priority Benchmark Skills and Assessments**

This section features the priority benchmarks for each grade level with template assessments for each priority skill. The assessments can be adopted or adapted for use by teachers and librarians who are teaching these essential information skills.

# Information Fluency: Priority Benchmark Skills and Assessments

## Grade K

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING		
Inquiry Phase: Connect	K.1 Connects ideas to own interests.	K.1 Connecting Ideas to Own Interests -- Pictures K.1 Connecting Ideas to Own Interests -- Words
Inquiry Phase: Wonder		
Inquiry Phase: Investigate	K.2 Understands the basic organizational structure of books.	K.2 Sequence of Events
	K.3 Distinguishes between fiction and nonfiction resources.	K.3 Fiction and Nonfiction Books
Inquiry Phase: Construct	K.4 Demonstrates simple organizational skills such as sorting and categorizing.	K.4 Sorting Books
Inquiry Phase: Express	K.5 Presents facts and simple answers to questions.	K.5 Answering Questions with Facts
Inquiry Phase: Reflect	K.6 Identifies own strengths and sets goals for improvement.	K.6 Knowing and Learning in the Library
STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

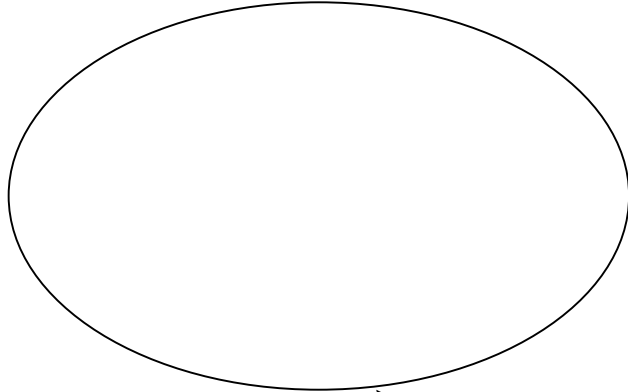
Name \_\_\_\_\_

Class \_\_\_\_\_

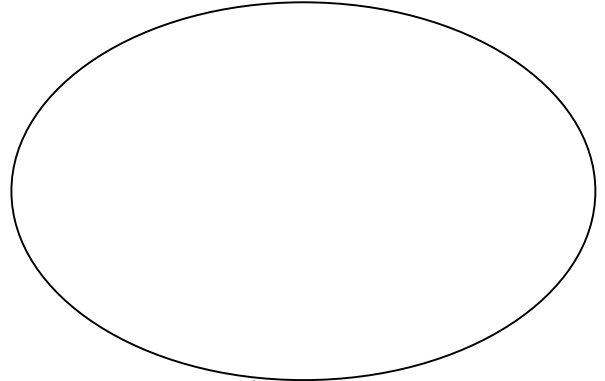
## Connecting Ideas to Own Interests – Pictures

*Draw pictures of your ideas.*

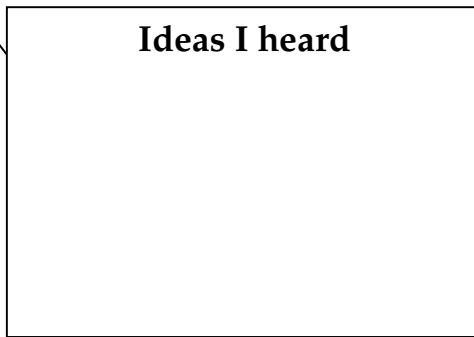
**I want to find out**



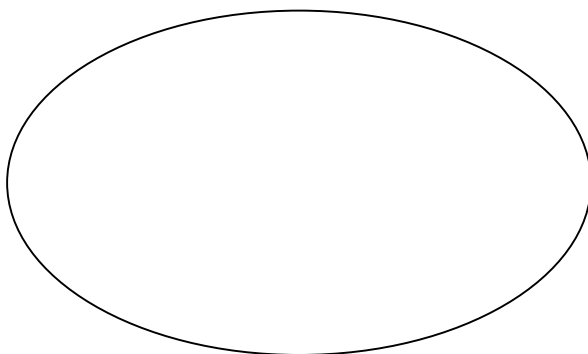
**I want to find out**



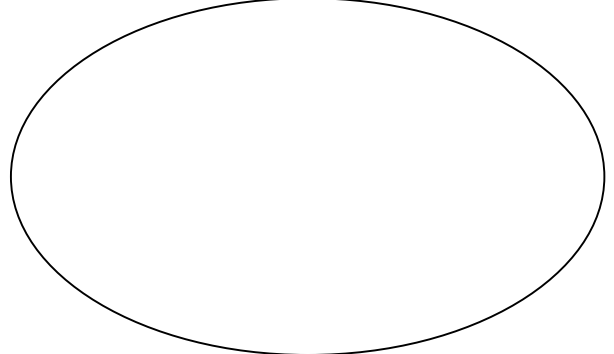
**Ideas I heard**



**I want to find out**



**I want to find out**





Name\_\_\_\_\_ Class\_\_\_\_\_

## Connecting Ideas to Own Interests – Words

Ideas I heard	I would like to know more about

Ideas I heard	I would like to know more about

Name \_\_\_\_\_ Class \_\_\_\_\_

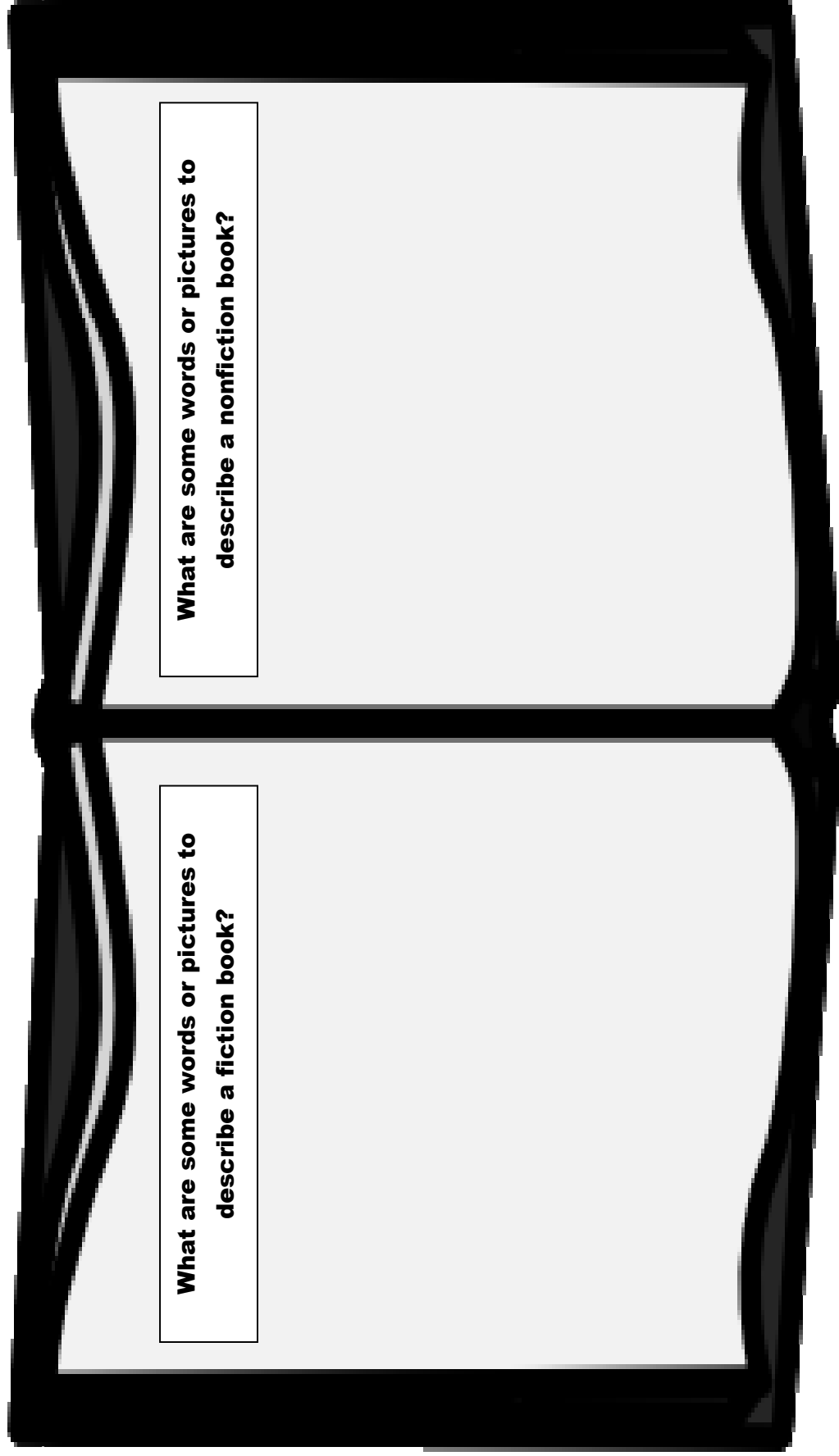
## Sequence of Events

Beginning	Middle	End
In the beginning ...	What happens first...	At the end...
	Next ...	
	After that ...	
	Then ...	

Name \_\_\_\_\_

Class \_\_\_\_\_

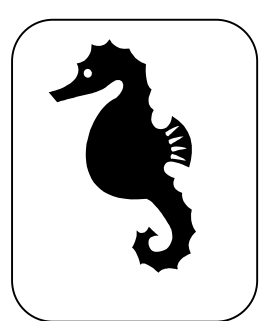
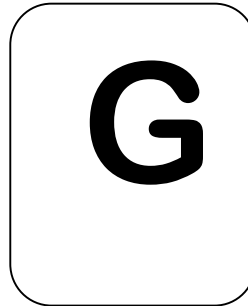
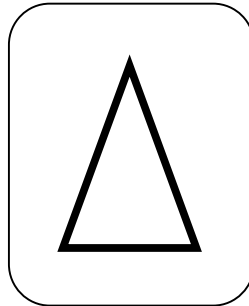
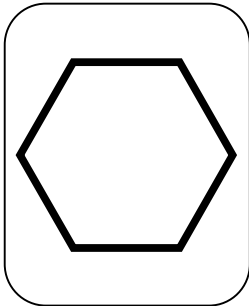
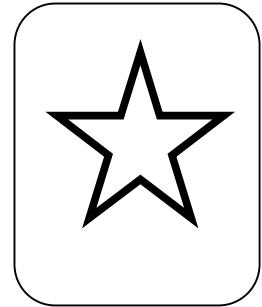
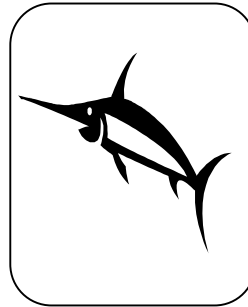
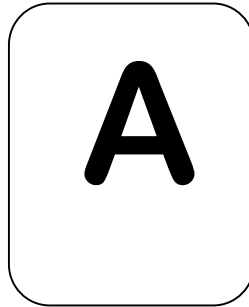
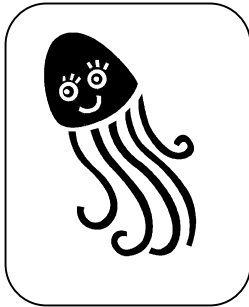
## **Fiction and Nonfiction Books**



Name \_\_\_\_\_ Class \_\_\_\_\_

## Sorting Books

*Draw a line connecting the object to the correct basket.*



**Alphabet**



**Shapes**



**Ocean Life**

Name\_\_\_\_\_ Class\_\_\_\_\_

## Answering Questions with Facts

Question: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_?

FACT

FACT

FACT

FACT

Name \_\_\_\_\_ Class \_\_\_\_\_

**Knowing and Learning in the Library**

***Draw a picture and write a sentence.***

**In the library, I know how to...**

**In the library, I know how to...**

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**In the library, I want to learn  
how to...**

**In the library, I want to learn  
how to...**

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# **Information Fluency: Priority Benchmark Skills and Assessments**

## **Grade 1**

<b>STANDARDS AND INDICATORS</b>	<b>BENCHMARKS</b>	<b>ASSESSMENTS</b>
<b>STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING</b>		
Inquiry Phase: Connect	1.1 Share what is known about the general topic to elicit and make connections to prior knowledge.	1.1 What Do You Already Know About Your Topic?
Inquiry Phase: Wonder		
Inquiry Phase: Investigate	1.2 Recognizes that fiction and picture books are organized by the author's last name in A-B-C order.	1.2 How Are Picture Books Organized in the Library?
	1.3 Distinguishes between fact and opinion.	1.3 Recognizing Facts and Forming Opinions
	1.4 Finds facts and briefly summarizes them via writing, drawing, or verbalization to answer research questions.	1.4 Using Facts to Answer Questions
Inquiry Phase: Construct	1.5 Draws a conclusion about the main idea with guidance.	1.5 Picturing the Main Idea of a Story
Inquiry Phase: Express		
Inquiry Phase: Reflect	1.6 Asks, "What do I wonder about now?"	1.6 Now I Wonder. . .
	1.7 Identifies own strengths and sets goals for improvement.	1.7 Knowing and Learning in the Library
<b>STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH</b>		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
<b>STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY</b>		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name \_\_\_\_\_ Class \_\_\_\_\_

**What Do You Already Know About Your Topic?**

A concept map template consisting of a central oval and four surrounding circles. The central oval is labeled "TOPIC:" and has three horizontal lines for writing. It is connected by lines to four empty circles arranged in a square around it. The circles are intended for students to write down what they already know about their topic.



Name \_\_\_\_\_ Class \_\_\_\_\_

## How are Picture Books Organized in the Library?

*Fill in the missing letters of the alphabet on the bookshelf.*

PICTURE BOOKS								
A	A	A	—	A	A	A	—	—
B	B	—	—	C				
C			C	C	C	C	C	C
D	D	D	—	D	—	D		
E	—	E	E	—				

Name \_\_\_\_\_ Class \_\_\_\_\_

## Recognizing Facts and Forming Opinions

Topic:

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Fact: What do you know is true?	Opinion: What do you think about that?

Name \_\_\_\_\_ Class \_\_\_\_\_

**Using Facts to Answer Questions**

Question: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_?

**FACT:**

**FACT:**

**FACT:**

**I learned** \_\_\_\_\_

Name \_\_\_\_\_ Class \_\_\_\_\_

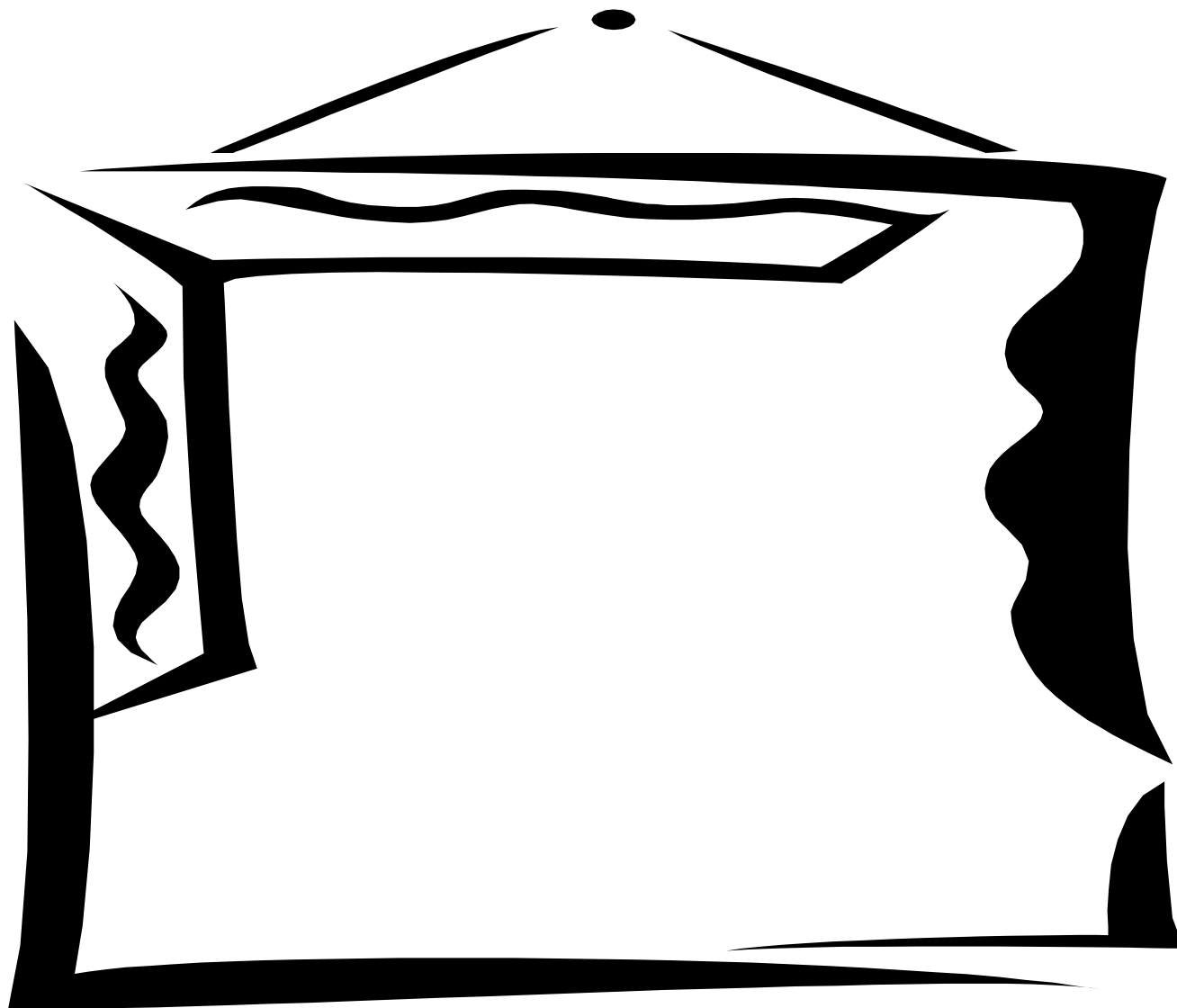
### **Picturing the Main Idea of a Story**

*Write down the main idea of the story and draw a picture of it.*

This story is about \_\_\_\_\_

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\_\_\_\_\_  
(Caption for picture)

Name \_\_\_\_\_ Class \_\_\_\_\_

Now I Wonder...

Topic: \_\_\_\_\_

who

where

when

what

I wonder \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I wonder \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I wonder \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I wonder \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How

Why

If

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name\_\_\_\_\_Class\_\_\_\_\_

**Knowing and Learning in the Library**

*Draw a picture and write a sentence.*

**In the library, I know how to...**

**In the library, I know how to...**

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**In the library, I want to learn  
how to...**

**In the library, I want to learn  
how to...**

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## **Information Fluency: Priority Benchmark Skills and Assessments**

### **Grade 2**

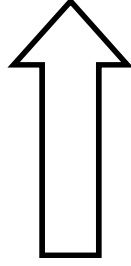
<b>STANDARDS AND INDICATORS</b>	<b>BENCHMARKS</b>	<b>ASSESSMENTS</b>
<b>STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING</b>		
Inquiry Phase: Connect	2.1 Recognizes that questions can be answered by finding information.	2.1 My Inquiry
Inquiry Phase: Wonder	2.2 Asks “I wonder” questions about the research topic.	2.2 I Wonder. . .
Inquiry Phase: Investigate	2.3 Follows a modeled inquiry process during each visit to the library to do research.	2.3 Inquiry Research Log
	2.4 Writes, draws, or verbalizes the main idea and supporting details.	2.4 Main Idea & Details
Inquiry Phase: Construct	2.5 Compares new ideas with what was known at the beginning of inquiry.	2.5 Prior Knowledge and New Understandings
Inquiry Phase: Express	2.6 Presents information in a variety of ways (e.g., art, music, poetry, movement, verbally, and/or written language).	2.6 See REACTS Taxonomy in Appendix
Inquiry Phase: Reflect	2.7 Identifies own strengths and sets goals for improvement.	2.7 Strengths and Goals in the Library
<b>STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH</b>		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
<b>STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY</b>		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name \_\_\_\_\_ Class \_\_\_\_\_

**My Inquiry**

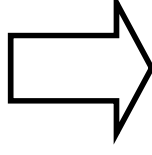
**My Knowledge**

**What do I know?**



**My Questions**

**What do I wonder?**



**My Notes**

**What did I find out?**



Name\_\_\_\_\_ Class\_\_\_\_\_

## I Wonder...

TOPIC:

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I wonder what\_\_\_\_\_

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I wonder how\_\_\_\_\_

---

I wonder why\_\_\_\_\_

---

I wonder if\_\_\_\_\_

---

I wonder when\_\_\_\_\_

---

I wonder who\_\_\_\_\_

---

I wonder where\_\_\_\_\_

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Name \_\_\_\_\_ Class \_\_\_\_\_

### Inquiry Research Log

**My topic:** \_\_\_\_\_

\_\_\_\_\_

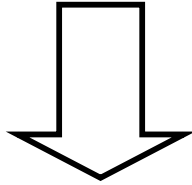
\_\_\_\_\_

<b>Inquiry Log</b>	<b>Librarian's Initials</b>
<b>What I already know...</b>	
<b>My questions:</b>	
<b>My facts to answer my questions:</b>	
<b>The main ideas I learned:</b>	
<b>I created this to show what I learned:</b>	
<b>Now I want to know...</b>	

Name\_\_\_\_\_ Class\_\_\_\_\_

Main Idea & Details

Draw or Write the Main Idea



Detail 1:

Detail 2:

Detail 3:

Name\_\_\_\_\_ Class\_\_\_\_\_

### **Prior Knowledge and New Understandings**

**I knew...**

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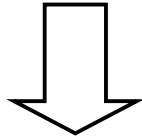
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**I now know...**

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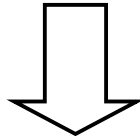
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**I was surprised to learn...**

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Name\_\_\_\_\_ Class\_\_\_\_\_

## **Strengths and Goals in the Library**

**What can you do in the library?**

1. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**What do you want to be able to do?**

1. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Information Fluency: Priority Benchmark Skills and Assessments

### Grade 3

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING		
Inquiry Phase: Connect		
Inquiry Phase: Wonder		
Inquiry Phase: Investigate	3.1 Identifies the ten major Dewey areas and what main topics are included in each.  3.2 Searches the online catalog (author, title, and subject) with assistance to locate materials.  3.3 Uses bookmarked Websites to find appropriate information.	3.1 Dewey Decimal System  3.2 Online Catalog Searching for Library Resources  3.3 Using a Website to Find Appropriate Information
Inquiry Phase: Construct	3.4 States the main idea.	3.4 Main Idea and Supporting Details
Inquiry Phase: Express	3.5 Chooses the format for the product based on personal preference or uses format chosen by the teacher or librarian.  3.6 Presents information clearly so that main points are evident.	3.5 See REACTS Taxonomy in Appendix  3.6 Main Points
Inquiry Phase: Reflect	3.7 Assesses and revises own work with guidance.  3.8 Identifies own strengths and sets goals for improvement.	3.7 How Am I Doing?  3.8 Strengths and Goals
STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name\_\_\_\_\_ Class\_\_\_\_\_

## Dewey Decimal System

Dewey Class	Main Subjects	Interesting Title and Dewey Number
<b>000's General works</b>		
<b>100's Philosophy and Psychology</b>		
<b>200's Religion</b>		
<b>300's Social Science</b>		
<b>400's Language</b>		
<b>500's Pure Science</b>		
<b>600's Applied Science</b>		
<b>700's The Arts</b>		
<b>800's Literature</b>		
<b>900's History and Geography</b>		

Name \_\_\_\_\_ Class \_\_\_\_\_

## Online Catalog Searching for Library Resources

*Circle the key or important words in your question.*

Question:

What other words could you use? (Think of synonyms or related words.)

Write down the source where you found your answer.

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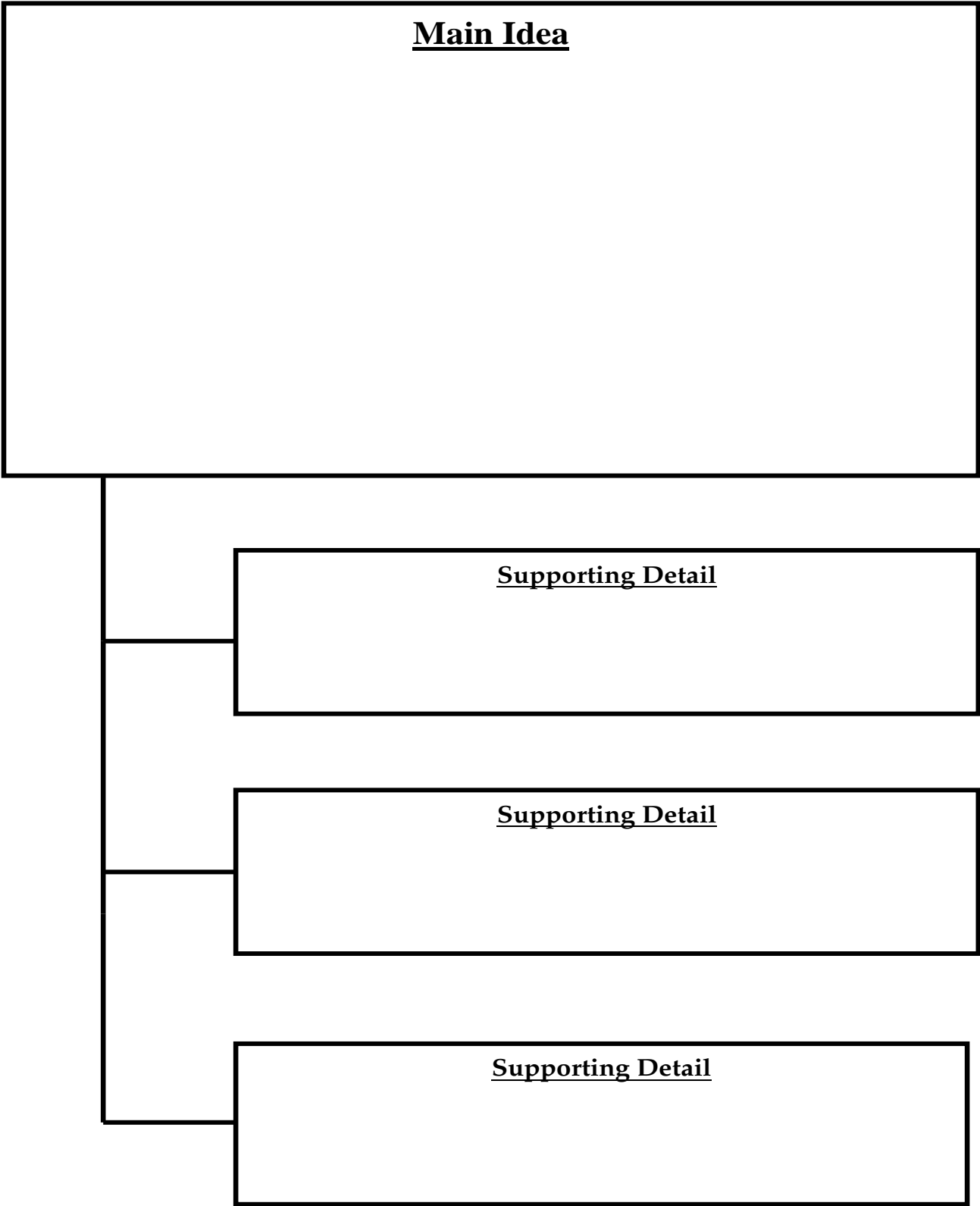
Name\_\_\_\_\_Class\_\_\_\_\_

## Using a Website to Find Appropriate Information

**Question:**

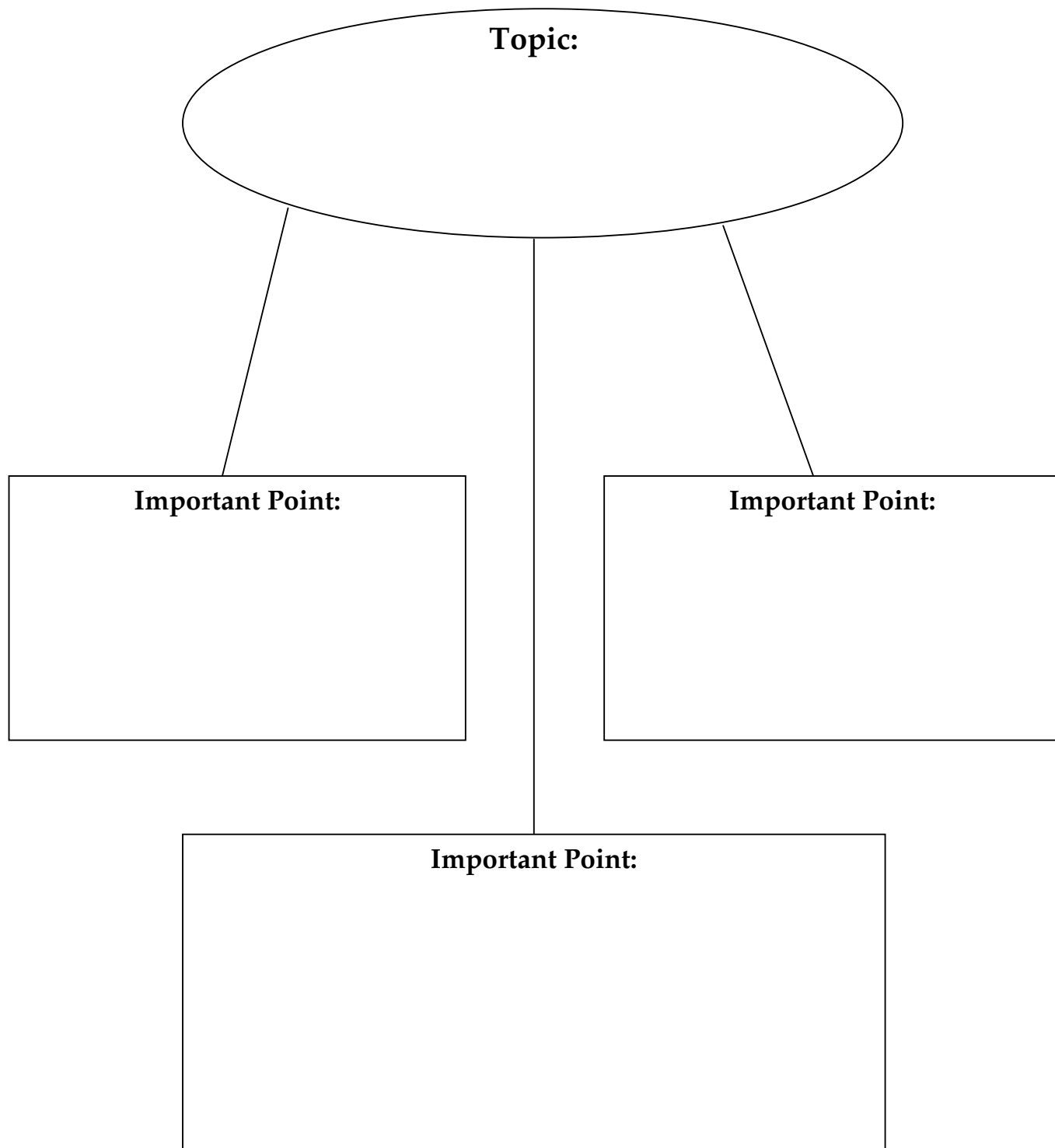
What is the Website about?	<u>Clues:</u>	   <p>Is it easy to tell what the Website is about?</p>
Who is the author/creator of the Website?	<u>Clues:</u>	   <p>Is the author/creator of the website trustworthy?</p>
Is the content well-written on the Website?	<u>Clues:</u>	   <p>Is the Website easy to read and find the main ideas?</p>
Find three facts from the Website to answer your question.	1)   2)   3)	   <p>Is this fact helpful?</p>    <p>Is this fact helpful?</p>    <p>Is this fact helpful?</p>

Main Idea and Supporting Details



Name\_\_\_\_\_Class\_\_\_\_\_

**Main Points**



Name\_\_\_\_\_ Class\_\_\_\_\_

## How Am I Doing?

**My Project:** \_\_\_\_\_

\_\_\_\_\_

Attribute	Self	Teacher
I answered my research questions.	_____	_____
My main idea is clearly presented.	_____	_____
I provided supporting details for my main idea.	_____	_____
My final project is written in my own words.	_____	_____
My final project is neat, clear, and well-organized.	_____	_____
I reviewed my work for proper grammar.	_____	_____
I used multiple sources including print and electronic.	_____	_____
I cited my sources of information.	_____	_____
My friends would find my project interesting.	_____	_____

Name\_\_\_\_\_ Class\_\_\_\_\_

## **Strengths and Goals**

**What I did well:**

1.

2.

3.

**Why was it good?**

1.

2.

3.

**What could have been better:**

1.

2.

3.

**How can I improve it?**

1.

2.

3.

## Information Fluency: Priority Benchmark Skills and Assessments

### Grade 4

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING		
Inquiry Phase: Connect	4.1 Generates a list of key words for a research-based project with guidance.	4.1 Key Words for Online Searching
Inquiry Phase: Wonder	4.2 Asks questions to clarify topics or details. 4.3 Predicts answers to inquiry questions based on background knowledge and beginning observation or experience.	4.2 Main Ideas and Details 4.3 Predicting Answers
Inquiry Phase: Investigate	4.4 Uses selected search engines to find appropriate information. 4.5 Paraphrases and summarizes information that answers research questions.	4.4 Selecting the Right Sources 4.5 Paraphrasing Chart
Inquiry Phase: Construct	4.6 Identifies facts and details that support main ideas.  4.7 Uses common organizational patterns (chronological order, main idea with supporting details) to organize information.	4.6 Mapping the Main Idea and Supporting Facts 4.6 Summarizing the Important Ideas 4.7 Supporting the Main Idea
Inquiry Phase: Express		
Inquiry Phase: Reflect	4.8 Identifies and evaluates the important features for a good product. 4.9 Assesses and revises own work with guidance. 4.10 Identifies own strengths and sets goals for improvement.	4.8 Identifying the Story Elements 4.9 Using Feedback to Revise My Work 4.10 Strengths and Goals
STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name \_\_\_\_\_ Class \_\_\_\_\_

## Key Words for Online Searching

*Circle the key or important words in your question.*

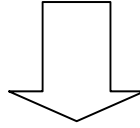
Question:

What other words could you use? (Think of synonyms or related words.)

Name\_\_\_\_\_ Class\_\_\_\_\_

## Main Ideas and Details

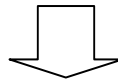
Main Idea (Paraphrase in your own words)



Supporting Detail 1 – *Is this fact or opinion? How does it support the main idea?*

Supporting Detail 2 – *Is this fact or opinion? How does it support the main idea?*

Supporting Detail 3 – *Is this fact or opinion? How does it support the main idea?*



Summary of Main Idea and Details (in 2-3 sentences of your own words)



Name \_\_\_\_\_ Class \_\_\_\_\_

## Predicting Answers

Topic: \_\_\_\_\_

I Already Know	I Wonder	I Predict I Will Find

Name \_\_\_\_\_ Class \_\_\_\_\_

## SELECTING THE RIGHT SOURCES

Question:

If this question requires,		Then I might try this type of source:
The most up-to-date information	↑	Magazine, newspaper, website, almanac
Historical information	↑	Reference, nonfiction, biography, online primary
Background or summary information	↑	General encyclopedia
Very specific or in-depth information	↑	Nonfiction, magazine, website, reference
First-hand accounts	↑	Nonfiction, biography, online primary sources

Where did I find the information to answer the question?	Why did I choose this source?

Class

## Paraphrasing Chart

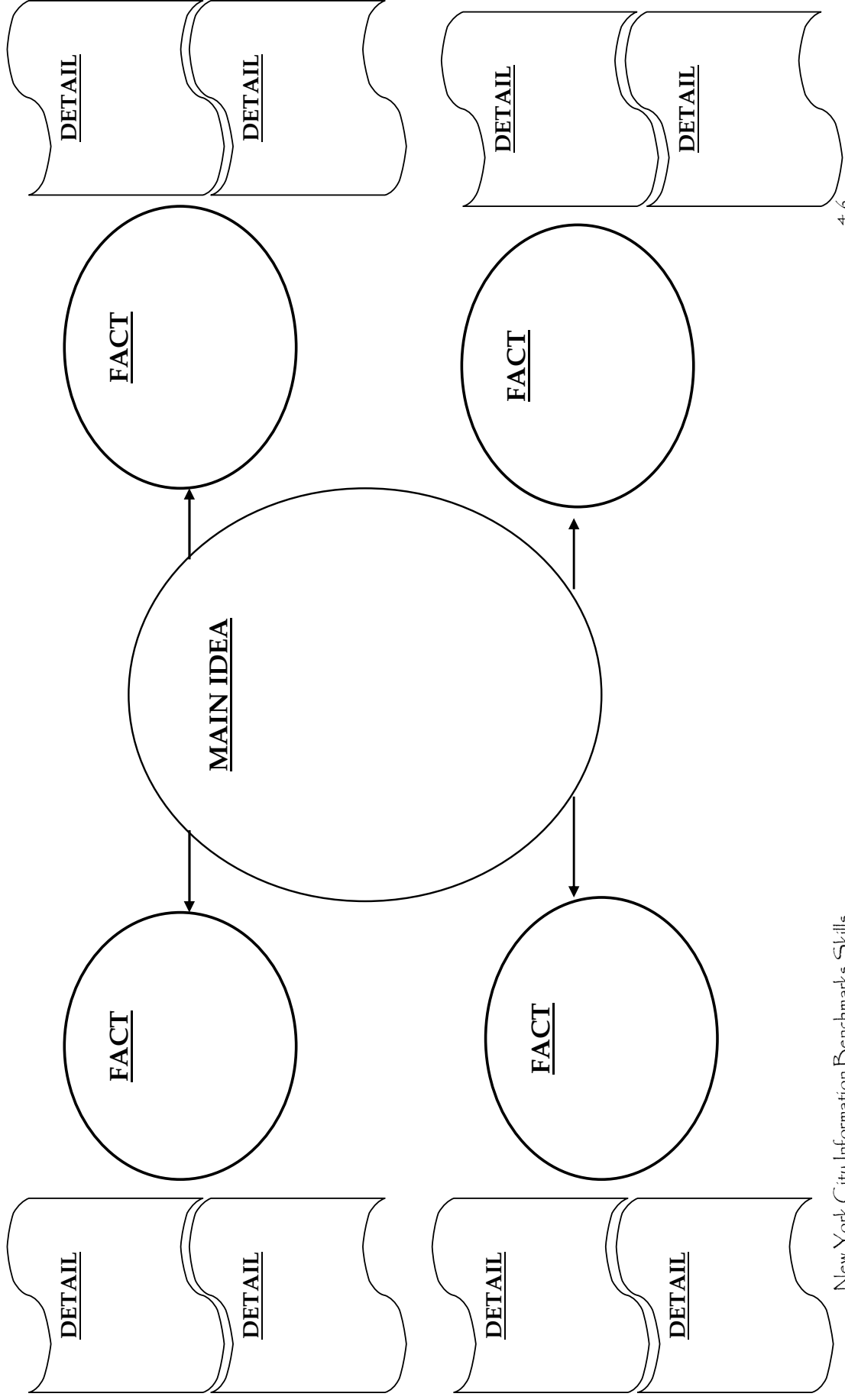
**Paraphrasing** means to put some text that you've read or heard into your own words.

Start with **Notes** where you write down information from the text – main ideas, facts, supporting evidence. In **My Paraphrase** column, write 2-3 sentences in which you explain the main ideas in your own words. In the **My Thoughts** section, write what these ideas make you think about – what feelings, predictions, or conclusions can you draw?

<b><u>NOTES FROM ORIGINAL SOURCE</u></b>	<b><u>MY PARAPHRASE</u></b>
<b><u>MY THOUGHTS</u></b>	

Name \_\_\_\_\_ Class \_\_\_\_\_

## Mapping the Main Idea and Supporting Facts



Name \_\_\_\_\_ Class \_\_\_\_\_

## Summarizing the Important Ideas

IMPORTANT IDEA	IMPORTANT IDEA	IMPORTANT IDEA	IMPORTANT IDEA

**SUMMARY:**

Name \_\_\_\_\_ Class \_\_\_\_\_

## Supporting the Main Idea

Main Idea

Supporting Detail

Supporting Detail

Supporting Detail

Summary

Name\_\_\_\_\_ Class\_\_\_\_\_

## **Identifying the Story Elements**

**Title** \_\_\_\_\_

**Author**\_\_\_\_\_

**Character(s)**

**Setting**

**Problem (conflict)**

**Solution (resolution)**

**Main Idea**

Name \_\_\_\_\_ Class \_\_\_\_\_

## Using Feedback to Revise My Work

Attribute	Feedback from Teacher	Feedback from Others
The research answered the questions.		
The main idea is clearly presented.		
Supporting details for the main idea were provided.		
The final project is written in the student's own words.		
The final project is neat, clear, and well-organized.		
The project has been reviewed for proper grammar.		
There were multiple sources including print and electronic.		
All sources were cited and in a proper bibliographic format.		
The project is interesting and keeps the reader's attention.		

I will modify and revise my work in the following ways:

---

---

---

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---

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---



Name\_\_\_\_\_ Class\_\_\_\_\_

## **Strengths and Goals**

**What I did well:**

1.

2.

3.

**Why was it good?**

1.

2.

3.

**What could have been better:**

1.

2.

3.

**How can I improve it?**

1.

2.

3.

## Information Fluency: Priority Benchmark Skills and Assessments

### Grade 5

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING		
Inquiry Phase: Connect	5.1 Uses sources to acquire background information and brainstorms ideas for further inquiry.	5.1 Using Background Information to Brainstorm Ideas
Inquiry Phase: Wonder	5.2 Assesses questions to determine which can be answered by simple facts, which cannot be answered, and which would lead to an interesting inquiry.	5.2 Writing Questions That Lead to Inquiry
Inquiry Phase: Investigate	5.3 Selects and uses multiple appropriate print, nonprint, electronic, and human sources to answer questions. 5.4 Uses navigation tools of a Website to find information. 5.5 Evaluates print and electronic information for usefulness, relevance, and accuracy. 5.6 Uses various note taking strategies (e.g., outlining, underlining, bulleted lists, highlighting, graphic organizers).	5.3 Using Multiple Sources  5.4 Using Website Navigation Tools 5.5 Evaluation Tool Sheet  5.6 Notetaking Grid 5.6 Notetaking by Question
Inquiry Phase: Construct	5.7 Forms opinion and uses evidence from text to back it up.	5.7 Using Evidence to Support Opinions
Inquiry Phase: Express	5.8 Cites all sources used according to model provided by teacher. 5.9 Modifies and revises own work based on feedback from teacher and others.	5.8 Bibliography Worksheet  5.9, 5.10 Using Feedback to Revise My Work
Inquiry Phase: Reflect	5.10 Assesses and revises own work with guidance. 5.11 Identifies own strengths and sets goals for improvement.	5.9, 5.10 Using Feedback to Revise My Work 5.11 Strengths and Goals
STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name \_\_\_\_\_

Class \_\_\_\_\_

## Using Background Information to Brainstorm Ideas

Source:

\_\_\_\_\_

Information:

\_\_\_\_\_

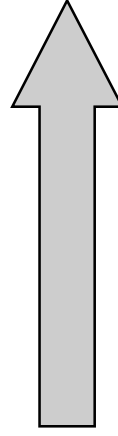
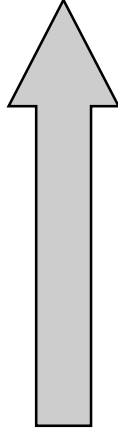
Source:

\_\_\_\_\_

Information:

\_\_\_\_\_

TOPIC:



Ideas for further inquiry:

Ideas for further inquiry:

Name \_\_\_\_\_ Class \_\_\_\_\_

## Writing Questions That Lead to Inquiry

Question:

---

---

---

Can your question be answered by research?

- ✓ Is this a topic that someone would have written about? If yes, why do you think so?

---

---

- ✓ Will there be facts as well as opinions about this topic?

---

---

Will your question lead to an interesting inquiry investigation?

- ✓ Am I interested in the topic?
- ✓ Does the question go beyond a yes/no answer?
- ✓ Is the question complex enough to require information beyond a few simple facts to answer it?
- ✓ Does the question lead to investigating multiple points of view?

How could you revise the question to make it answerable and more interesting?

Revised Question:

---

---

---

Name\_\_\_\_\_Class\_\_\_\_\_

## Using Multiple Sources

## My Research Notes About:

---

---

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<b>Source Formats include:</b>	<b>Question 1</b>	<b>Question 2</b>	<b>Question 3</b>
<ul style="list-style-type: none"> <li>• Print</li> <li>• Nonprint</li> <li>• Electronic</li> <li>• Human</li> </ul>			
<b>Source 1</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>
<b>Source format:</b>			
<b>Source 2</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>
<b>Source format:</b>			
<b>Source 3</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>
<b>Source format:</b>			

Name\_\_\_\_\_Class\_\_\_\_\_

## Using Website Navigation Tools

Topic:

Question(s):

Navigation Tool	Information Found
Navigation Tabs	
Left/Right Channels	
Search Box	
Icons or Images	
Embedded Links	
Crumb Trail	

Name\_\_\_\_\_ Class\_\_\_\_\_

## Evaluation Tool Sheet

Resource:

### Usefulness

Criteria	Yes/No	Evidence
Does the information in the resource answer my question(s)?		
Is the information current? When was the information written?		
Is the information provided fact or opinion?		

### Relevance

Criteria	Yes/No	Evidence
Is the information from a primary source or secondary source?		
Is the information provided objective or only one side of an argument? Is there a particular point of view?		
Is the information related to your topic?		

### Accuracy

Criteria	Yes/No	Evidence
Do you know who the author of the information is? Is it clear or hidden?		
Is the source of the information trustworthy?		
Does the resource provide a comprehensive overview or a sketchy one?		

Name \_\_\_\_\_ Class \_\_\_\_\_

## Notetaking Grid

Topic:	Key Question:	Key Question:	Key Question:	Key Question:
Resource:				
Resource:				
Connect & React				



Name \_\_\_\_\_ Class \_\_\_\_\_

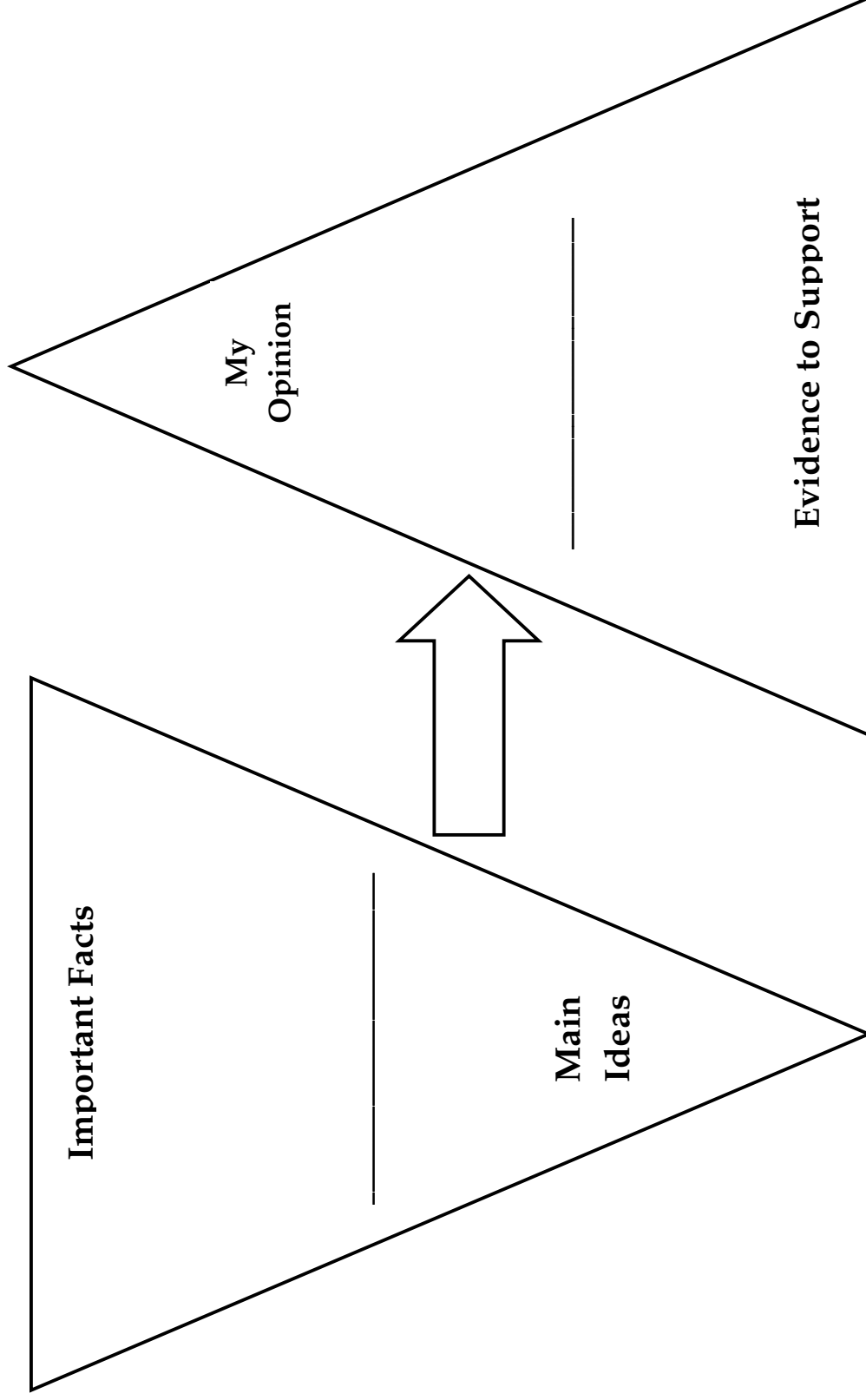
## Notetaking by Question

Topic: \_\_\_\_\_

	Resource (Web site or print source)	Information	Vocabulary (Key Words)	Paraphrase
Key Question:				
Key Question:				
Key Question:				
Key Question:				

Name \_\_\_\_\_ Class \_\_\_\_\_

## Using Evidence to Support Opinions



Name\_\_\_\_\_ Class\_\_\_\_\_

## Bibliography Worksheet

### Book Citation

#### Example:

Author's Last Name	Maguire
Author's First Name	Gregory
Title of Book	Wicked
City of Publication	New York
Name of Publisher	Harper Collins Publishers
Copyright Year	1995
Macguire, Gregory. <u>Wicked</u> . New York: HarperCollins Publishers, 1995.	

#### My Citation:

Author's Last Name	
Author's First Name	
Title of Book	
City of Publication	
Name of Publisher	
Copyright Year	

Name\_\_\_\_\_ Class\_\_\_\_\_

## Using Feedback to Revise My Work

Attribute	Feedback from Teacher	Feedback from Others
The research answered the questions.		
The main idea is clearly presented.		
Supporting details for the main idea were provided.		
The final project is written in the student's own words.		
The final project is neat, clear, and well-organized.		
The project has been reviewed for proper grammar.		
There were multiple sources including print and electronic.		
All sources were cited and in a proper bibliographic format.		
The project is interesting and keeps the reader's attention.		

I will modify and revise my work in the following ways:

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Name\_\_\_\_\_ Class\_\_\_\_\_

## Strengths and Goals

**What I did well:**

**Why was it good?**

1.

1.

2.

2.

3.

3.

**What could have been better:**

**How can I improve it?**

1.

1.

2.

2.

3.

3.

# Information Fluency: Priority Benchmark Skills and Assessments

## Grade 6

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING		
Inquiry Phase: Connect		
Inquiry Phase: Wonder		
Inquiry Phase: Investigate	6.1 Uses online catalog independently to locate specific books, get classification numbers, and browse the shelves. 6.2 Uses both primary and secondary sources.	6.1 Online Catalog  6.2 Making Inferences from Facts
Inquiry Phase: Construct	6.3 Combines information and weighs evidence to draw conclusions and create meaning.	6.3 Drawing Conclusions from Information
Inquiry Phase: Express	6.4 Presents conclusions and supporting facts in a variety of ways.	6.4 Conclusions and Supporting Evidence 6.4 CEI: Claim, Evidence and Interpretation
Inquiry Phase: Reflect		
STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name \_\_\_\_\_ Class \_\_\_\_\_

## Online Catalog

Catalog Search	Description	Strategy/Search Results
<b>Author</b>	Use this search to find all works written by an author. An author may be a person or an organization.	
<b>Title</b>	Use this search when you know all or part of a title.	
<b>Author/title combination</b>	Use this search when you have all of this information.	
<b>Keyword</b>	Keywords are words occurring in author names, titles, subject headings, publisher names or contents notes of catalog records. Use this all-purpose search when you are not sure which subject to use or other searches don't produce needed results.	
<b>Subject</b>	Use this "controlled vocabulary" search to find works <i>about</i> a topic or an author.	
<b>Call Number</b>	Each unique work in the catalog has its own call number. Call numbers are created by the library and printed on item labels. Because of the way they are structured, they bring works on the same topic or by the same author together, so that you can browse library shelves to find related sources.	

Name\_\_\_\_\_ Class\_\_\_\_\_

## Making Inferences from FACTS

### Inferences


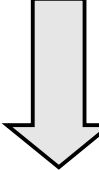
Guesses we  
make by using what see  
or read plus what we know  
from our own experiences.

<u>Fact/Observation</u>	<u>Inference</u> <i>This fact or observation suggests that...</i>



Name\_\_\_\_\_ Class\_\_\_\_\_

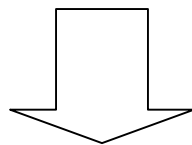
## Drawing Conclusions from Information

Facts	Inferences		
			
			
<table border="1"><thead><tr><th data-bbox="201 1194 1451 1245">Conclusion</th></tr></thead><tbody><tr><td data-bbox="201 1245 1451 1759"></td></tr></tbody></table>		Conclusion	
Conclusion			

Name\_\_\_\_\_ Class\_\_\_\_\_

## **Conclusions and Supporting Evidence**

**Conclusions**



**Supporting Evidence**

Name\_\_\_\_\_Class\_\_\_\_\_

## **CEI: Claim, Evidence and Interpretation**

**Claim:**

**Evidence:** Examples, quotes, textual references that support the claim ...

**Interpretation:** An explanation and/or analysis of the evidence

# Information Fluency: Priority Benchmark Skills and Assessments

## Grade 7

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
<b>STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING</b>		
Inquiry Phase: Connect	7.1 States and verifies what is known about the problem or question and makes connections to prior knowledge.	7.1 Predicting Answers to Inquiry Questions
Inquiry Phase: Wonder	7.2 Analyzes and evaluates what is known, observed or experienced to form tentative thesis or hypothesis.	7.2 Developing Focus Questions
Inquiry Phase: Investigate	7.3 Evaluates quality of electronic and print information for usefulness, currency, authority, and accuracy. 7.4 Uses both facts and opinions responsibly by identifying and verifying them.	7.3 Notetaking Grid  7.3 Website Evaluation  7.4 Fact vs. Opinion
Inquiry Phase: Construct	7.5 Uses common organizational patterns (chronological order, cause and effect, compare/contrast) to organize information in order to draw conclusions.  7.6 Interprets information and ideas by defining, classifying, and inferring.	7.5 Cause and Effect Diagram 7.5 One Cause/One Effect 7.5 Cause-Effect Chart 7.5 Chain-of-Events 7.5 Chronological Order 7.5 Time Sequence Organizer 7.5 Flow Chart  7.6 Readers Make Inferences
Inquiry Phase: Express	7.7 Cites all sources used according to local style formats.	7.7 Bibliography Worksheet
Inquiry Phase: Reflect	7.8 Uses established criteria or collaborates with classmates and teacher to develop criteria for assessment.	7.8 Self-Assessment
<b>STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH</b>		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
<b>STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY</b>		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name\_\_\_\_\_ Class\_\_\_\_\_

## Predicting Answers to Inquiry Questions

Topic: \_\_\_\_\_

**Background Information:**

Important people, places, dates:

Important issues:

Key words and concepts:

Question:	Predicted Answer:  Why?
Question:	Predicted Answer:  Why?
Question:	Predicted Answer:  Why?

Name \_\_\_\_\_ Class \_\_\_\_\_

## Developing Focus Questions

Your topic: \_\_\_\_\_

From simple to complex questions	<b>STARTING QUESTION:</b>	
	Open question using the 5 W's & How	
	Who	
	What	
	When	
	Where	
Why		
How		
<b>2. THINK DEEPLY:</b>		
Layered questions using comparison, cause and effect, importance		
<p>How are _____ and _____ related?</p> <p>How will / did _____ affect _____?</p> <p>What would / did _____ do to _____?</p> <p>Why might _____ be / have been important for _____?</p>		

Name\_\_\_\_\_

Class\_\_\_\_\_

**Notetaking Grid**

	Resource (Website)	Information	Vocabulary (Key Words)	Paraphrase
Key Question				
Key Question				
Key Question				

Name \_\_\_\_\_ Class \_\_\_\_\_

## Website Evaluation

Use the following criteria and questions to evaluate Websites for use in your research:

Criteria	Your Evaluation
<b>Website</b> <ul style="list-style-type: none"><li>• Title</li><li>• Author or Publisher</li><li>• Last Updated</li><li>• URL</li></ul>	
<b>Authority</b> <ul style="list-style-type: none"><li>• What are the credentials of the author or publisher?</li><li>• Is this a personal page or is it sponsored by an organization?</li><li>• What is the point of view or perspective of the creator?</li></ul>	
<b>Navigation</b> <ul style="list-style-type: none"><li>• What navigation tools are embedded in the site (e.g., navigation bar, tabs, left or right channel, site map) and how easily is the site navigated?</li><li>• What tools are offered to make the text easier to navigate (e.g., headings, bullets, graphics, highlighting)?</li><li>• Are all embedded links active?</li></ul>	
<b>Relevance</b> <ul style="list-style-type: none"><li>• Does the Website address your topic and research questions?</li><li>• Can you read and understand the text?</li></ul>	
<b>Accuracy</b> <ul style="list-style-type: none"><li>• Does the information appear to be accurate because it matches information found in other resources? Is it up-to-date?</li><li>• Is the information mostly facts or opinion?</li><li>• Is believable evidence provided to back up all statements?</li></ul>	
<b>Comprehensiveness</b> <ul style="list-style-type: none"><li>• Is the information complete and comprehensive?</li><li>• Does the site present more than one perspective?</li></ul>	



Name \_\_\_\_\_ Class \_\_\_\_\_

## FACT VS. OPINION

**Directions:** Understanding text often involves being able to tell the difference between fact and opinion. Often writers will mix fact and opinion, and it becomes the job of the reader to sort them out.

*Facts* are objective (i.e., they can be proven).

- *The White House is where the president lives.*

*Opinions* are subjective (i.e., they express a preference or bias).

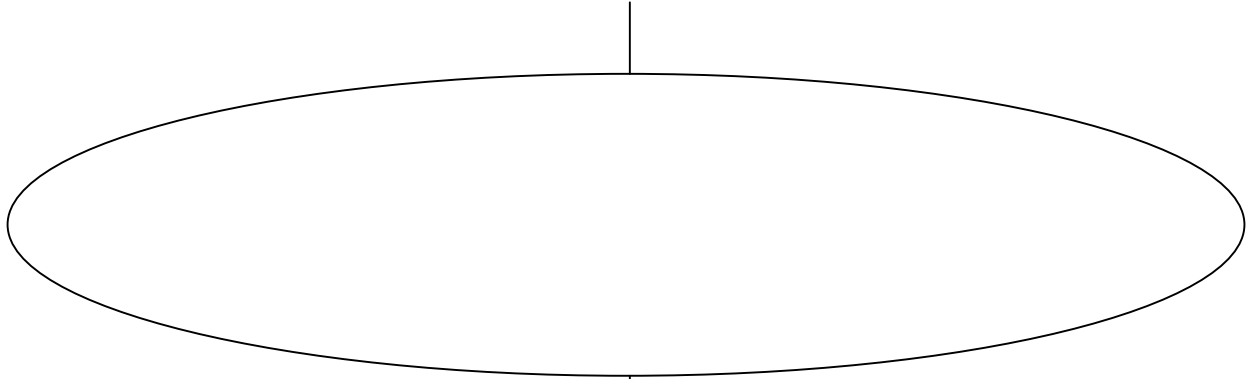
- *I think all dogs are mean.*

	Text details & direct quotes from text	Explain how you know the details are facts or opinions
FACTS		
OPINIONS		

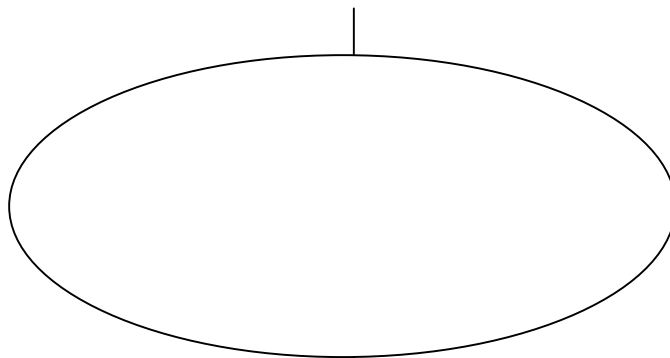
Name \_\_\_\_\_ Class \_\_\_\_\_

## Cause and Effect Diagram

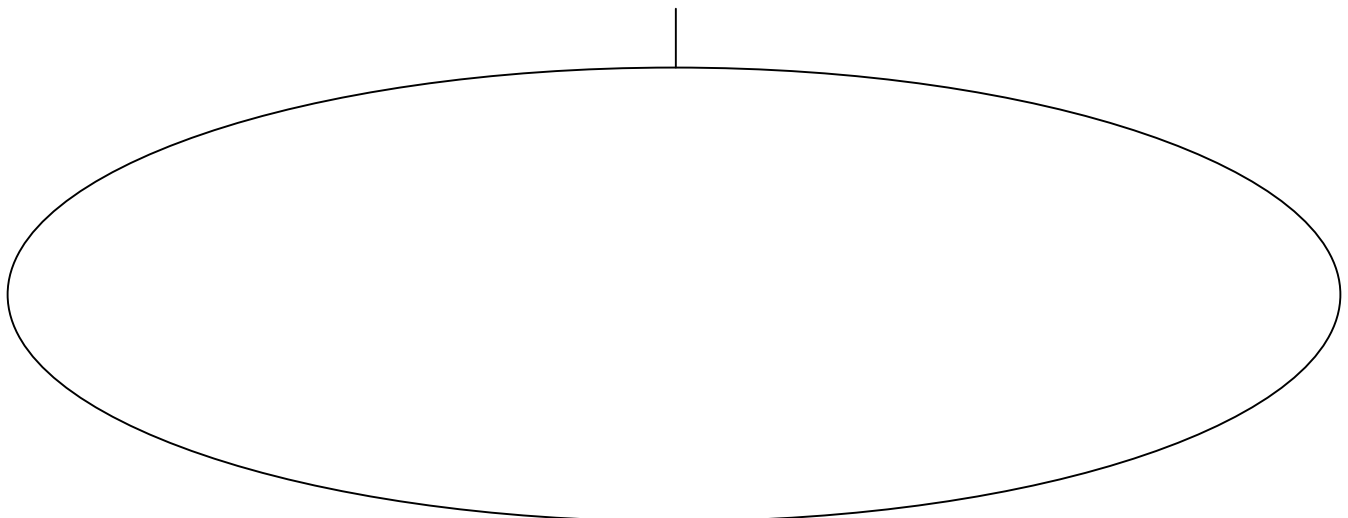
**Causes**



**Topic**



**Effects**

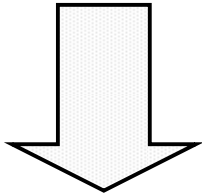


Name \_\_\_\_\_ Class \_\_\_\_\_

## One Cause / One Effect

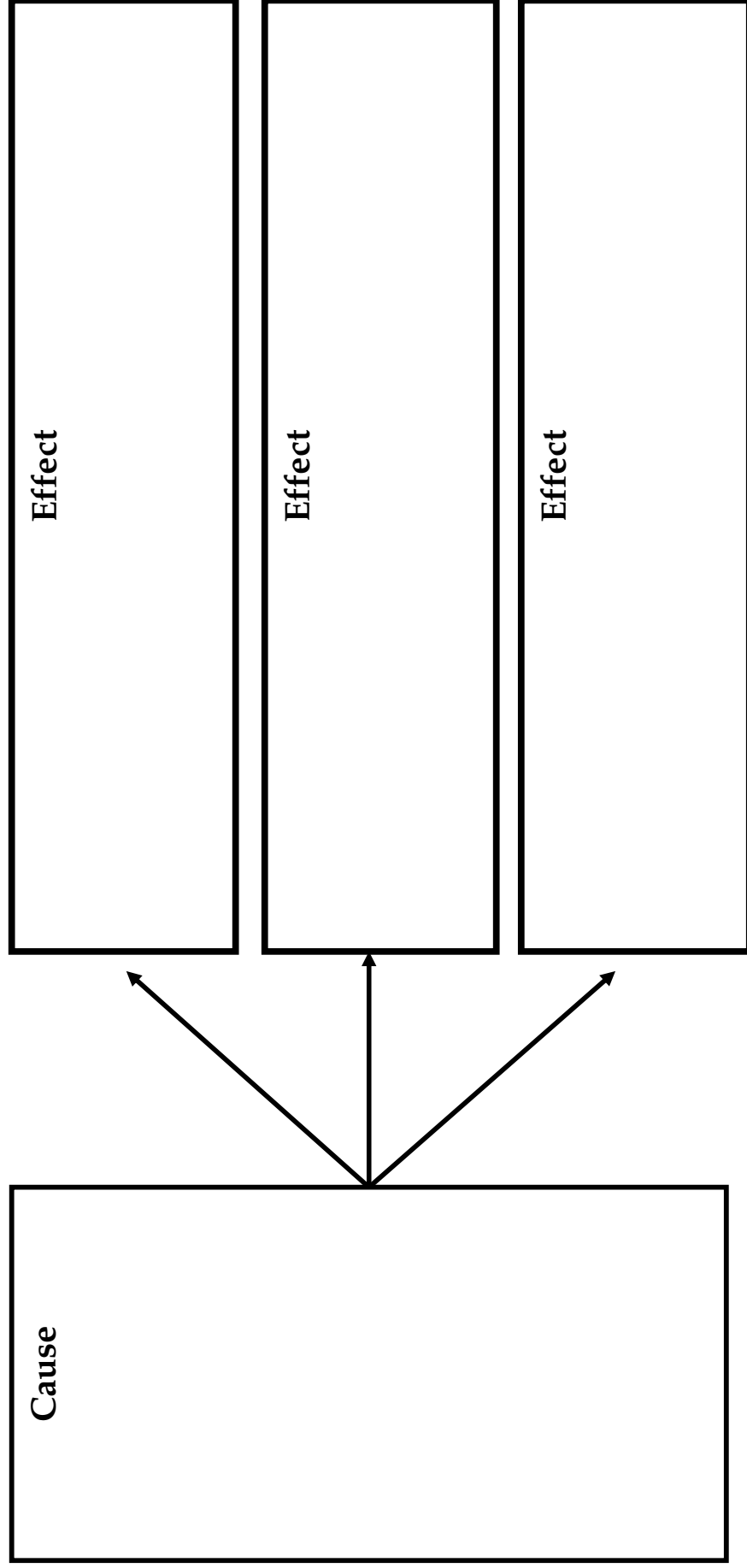
A *cause* is an event that makes something happen. An *effect* is what happens because of the cause. To find a cause, ask why something happened. To find an effect, ask what happened as a result of something. The chart below is presented to identify cause and effect.

Topic: \_\_\_\_\_

		CAUSE		
				
		EFFECT		

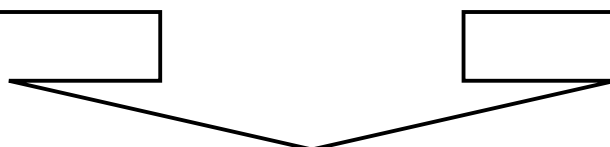
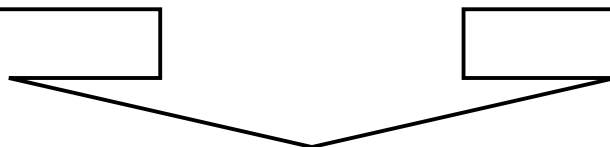
Name \_\_\_\_\_ Class \_\_\_\_\_

Cause-Effect Chart



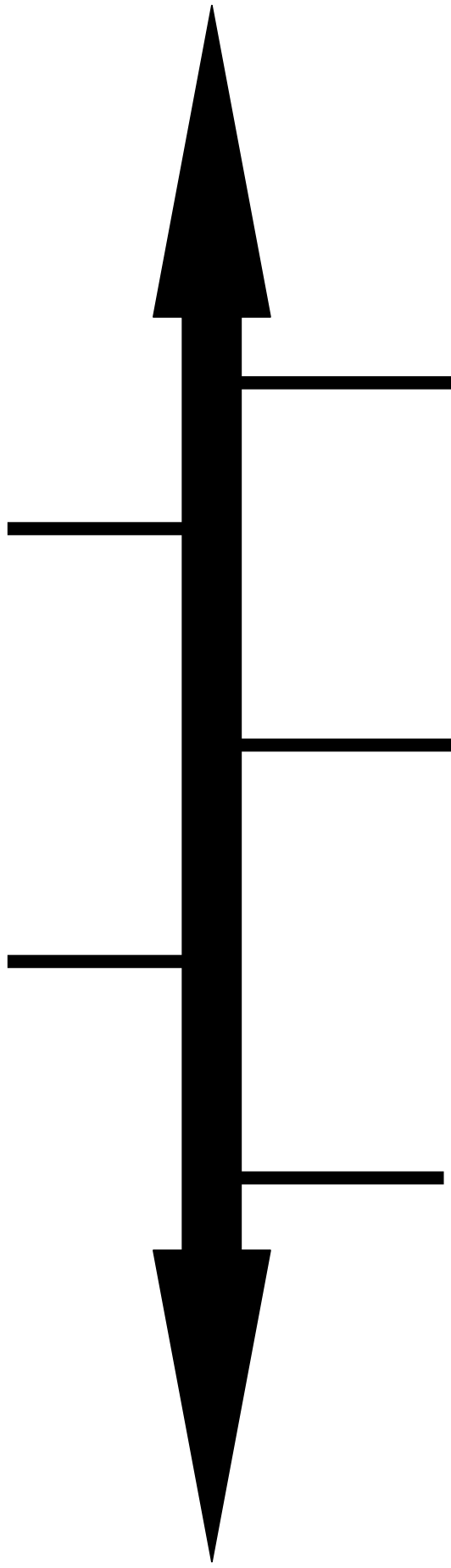
Name\_\_\_\_\_Class\_\_\_\_\_

## Chain-of-Events



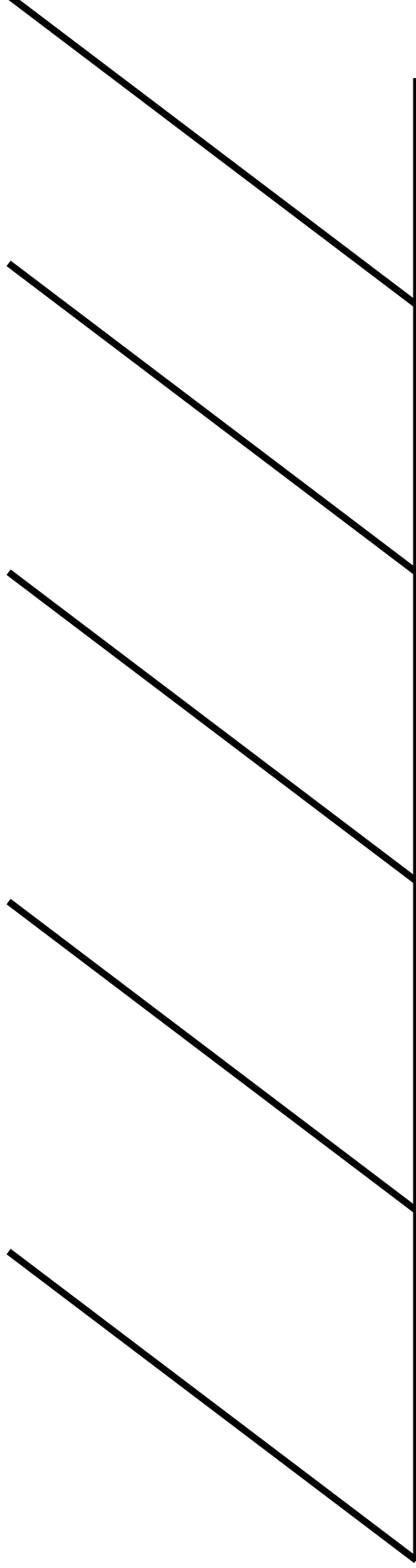
Name \_\_\_\_\_ Class \_\_\_\_\_

## Chronological Order



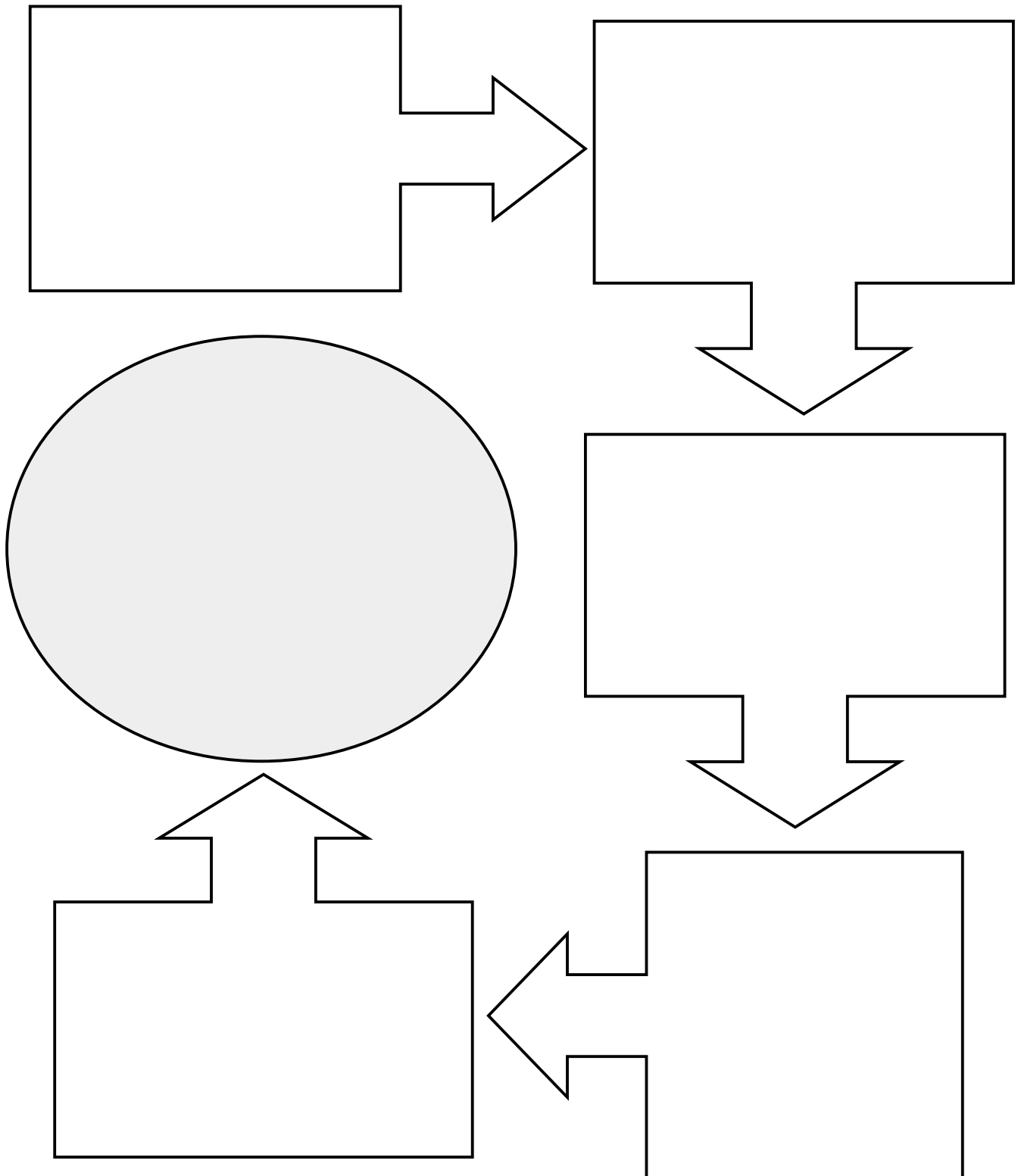
Name \_\_\_\_\_ Class \_\_\_\_\_

## Time Sequence Organizer



Name \_\_\_\_\_ Class \_\_\_\_\_

## Flow Chart





Name\_\_\_\_\_ Class\_\_\_\_\_

## **Readers Make Inferences**

*Figuring Out What Writers Mean by What They Say*

Quote:

*What it says in your own words*

*What it means “between the lines”*

Name \_\_\_\_\_ Class \_\_\_\_\_

## **Bibliography Worksheet**

To generate a bibliography, capture the following information for different types of sources. Then you may use a free online citation generator to format the bibliographic entry (for example, [www.easybib.com](http://www.easybib.com); [www.bibme.org](http://www.bibme.org); or [www.workscited4u.com](http://www.workscited4u.com)).

<b>Book (one author)</b>	
Author's Last Name, First Name	
Title of Book	
City of Publication	
Publisher	
Copyright Year	
<b>Magazine Article</b>	
Author's Last Name, First Name	
Title of Article	
Name of Magazine	
Volume and Issue of Magazine	
Date of Magazine	
Page Numbers	
URL (if online)	
Retrieval Date (if online)	
<b>Encyclopedia Article</b>	
Author's Last Name, First Name	
Title of Article	
Name of Encyclopedia	
Editor of Encyclopedia (if available)	
Volume, Pages	
City of Publication	
Publisher	
Copyright Year	
<b>Website</b>	
Author's Last Name, First Name	
Title of Web page	
Title of Website (if different)	
Publisher of Website	
URL	
Last Updated Date	
Retrieval Date	

Name\_\_\_\_\_ Class\_\_\_\_\_

## Self-Assessment

### *Identifying own strengths and setting goals for improvement*

1. What two parts of the assignment did you do well?
2. What part did you enjoy the most?
3. What part could you have improved?
4. Name two goals for improvement on your next assignment like this.

# Information Fluency: Priority Benchmark Skills and Assessments

## Grade 8

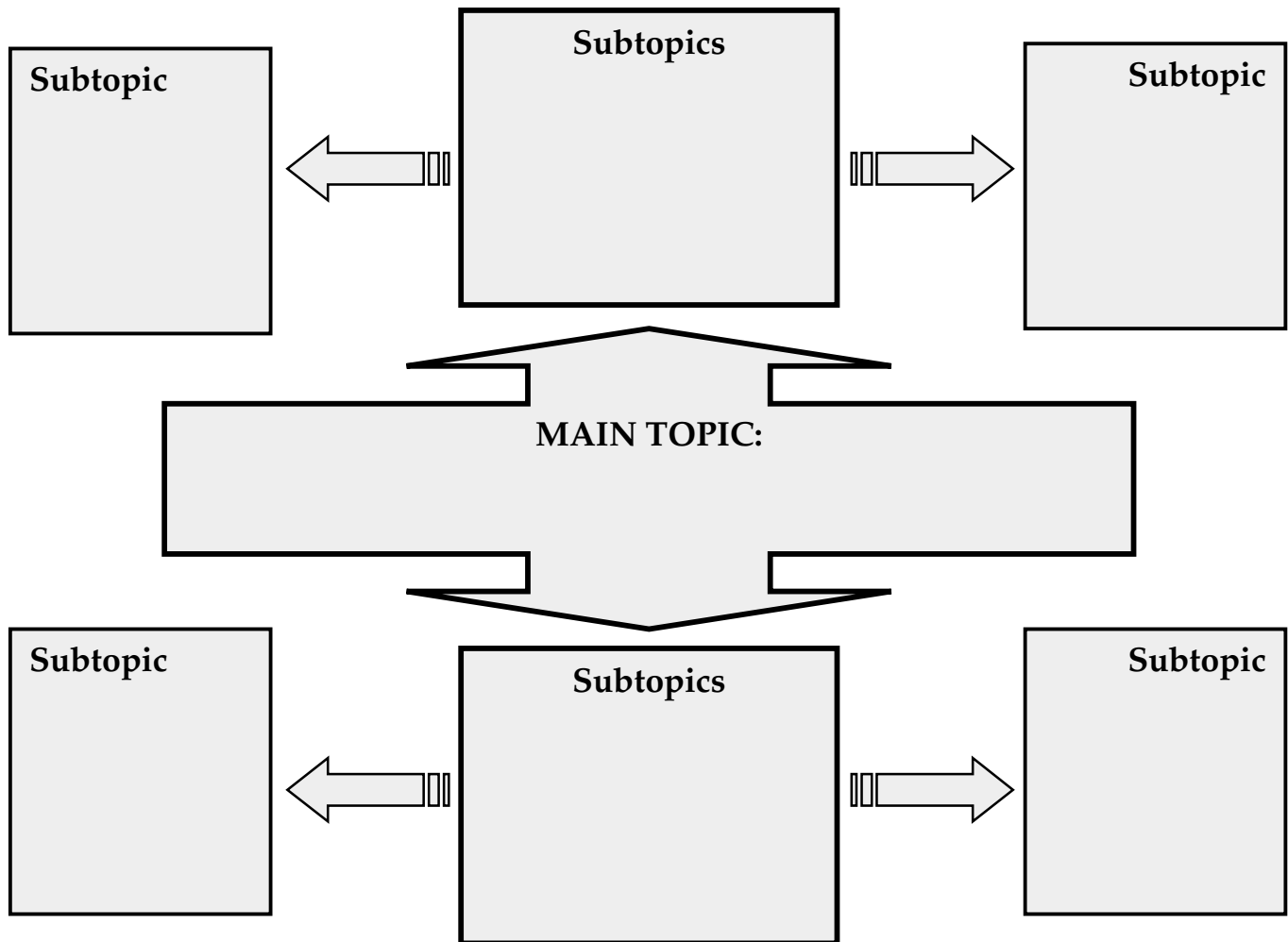
STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING		
Inquiry Phase: Connect	8.1 Revises the question or problem as needed to arrive at a manageable topic for inquiry.	8.1 Narrowing Down a Large Topic 8.1 Narrowing Down a Large Topic - <i>Example</i>
Inquiry Phase: Wonder	8.2 Refines questions to guide the search for different types of information (e.g., overview, big-idea, specific detail, cause and effect, comparison).	8.2 Refining Research Question to Search for Different Types of Information
Inquiry Phase: Investigate	8.3 Uses different formats (e.g. books, Websites, subscription databases, multimedia, graphs, charts, maps and diagrams) as sources of information. 8.4 Recognizes the effect of different perspectives and points of view on information. 8.5 Recognizes that own point of view influences the interpretation of information.	8.3 Using Different Sources  8.4 The Effects of Different Perspectives on Issues/Topics  8.5 Point of View Influences Interpretation or Information
Inquiry Phase: Construct	8.6 Draws conclusions based on explicit and implied information.	8.6 CEI: Claim, Evidence and Interpretation 8.6 Drawing Conclusions from Information
Inquiry Phase: Express	8.7 Creates products for authentic reasons and audiences.	8.7 My Research Project
Inquiry Phase: Reflect	8.8 Identifies own strengths and sets goals for improvement.	8.8 Strengths and Goals
STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name\_\_\_\_\_ Class\_\_\_\_\_

## Narrowing Down a Large Topic

**HINT: Choose one subtopic**

Perform *all* research necessary to understand that *one* subtopic



### Process for Selecting a Topic

- Read all available information on the main topic. Why? When you read, you will learn about terms or words and subtopics (issues that are related to your main topic).
- Choose the subtopic that not only most interests you but also has ample information.
- During and after your reading, write down questions that were not completely answered by your studies and/or readings or questions that arise from interest in the topic.

### Process for Selecting Search Engines

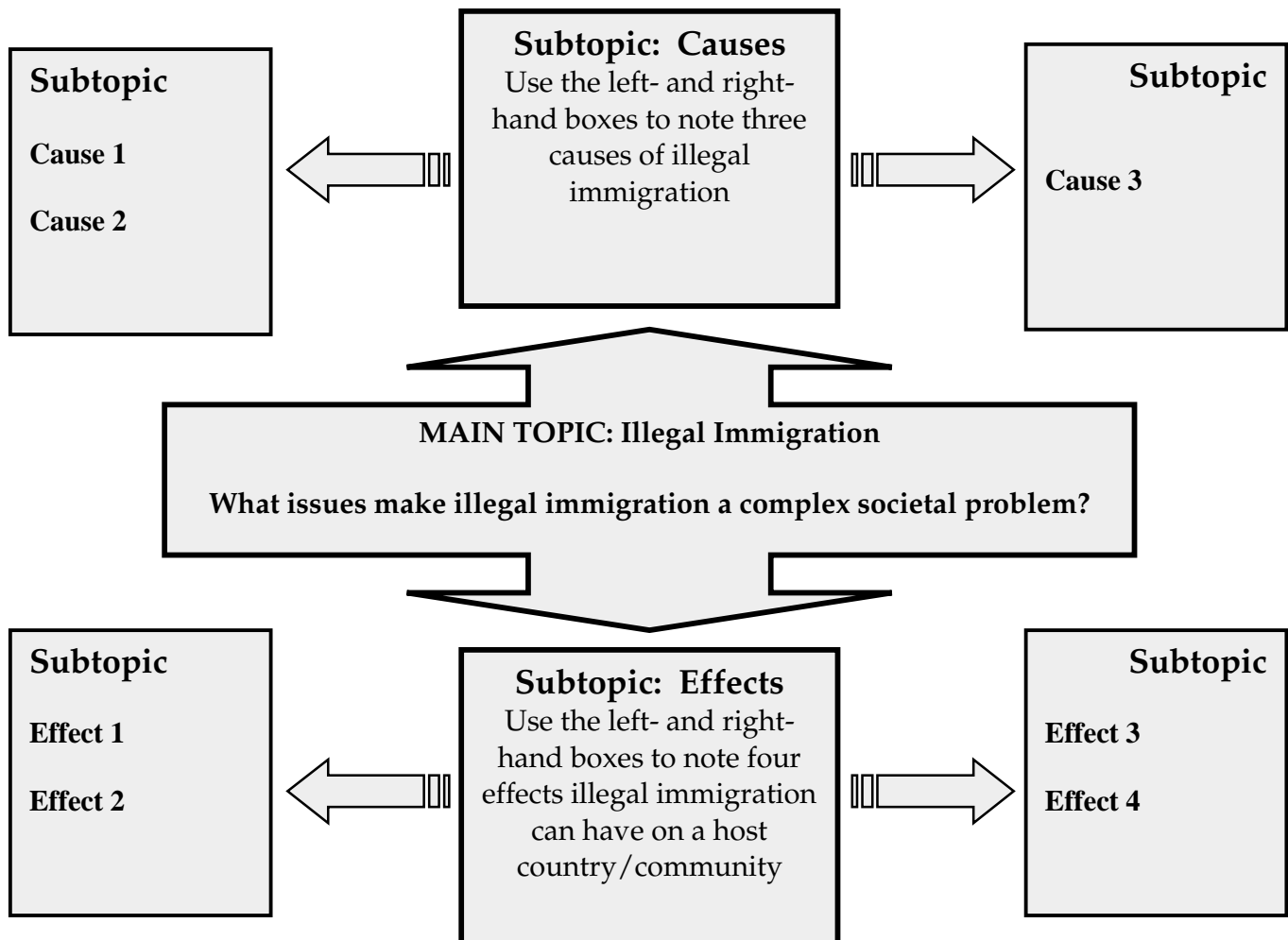
- Use any browser dialogue box.
- Type in the term "Search Engines" You will see that some results have notes that not only tell whether they are true search engines, but also the *type* of research for which they are best suited.

Name\_\_\_\_\_ Class\_\_\_\_\_

## Narrowing Down a Large Topic - *Example*

**HINT: Choose one subtopic**

Perform *all* research necessary to understand that *one* subtopic



### Process for Selecting a Topic

- Read all available information on the main topic. Why? When you read, you will learn about terms or words and subtopics (issues that are related to your main topic).
- Choose the subtopic that not only most interests you but also has ample information.
- During and after your reading, write down questions that were not completely answered by your studies and/or readings or questions that arise from interest in the topic.

### Process for Selecting Search Engines

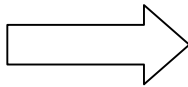
- Use any browser dialogue box.
- Type in the term "Search Engines" You will see that some results have notes that not only tell whether they are true search engines, but also the *type* of research for which they are best suited.

Name \_\_\_\_\_ Class \_\_\_\_\_

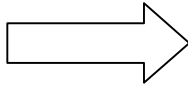
## Refining Research Question to Search for Different Types of Information

TOPIC: \_\_\_\_\_

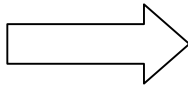
**ORIGINAL  
RESEARCH  
QUESTION**

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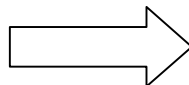
**REVISE QUESTION  
TO SEARCH FOR AN  
OVERVIEW OF THE  
TOPIC**

A rectangular box with wavy top and bottom edges, intended for writing a refined research question.

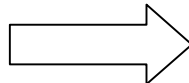
**REVISE QUESTION  
TO SEARCH FOR  
THE BIG IDEA OF  
THE TOPIC**

A rectangular box with wavy top and bottom edges, intended for writing a refined research question.

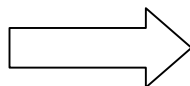
**REVISE QUESTION  
TO SEARCH FOR  
SPECIFIC DETAILS  
OF THE TOPIC**

A rectangular box with wavy top and bottom edges, intended for writing a refined research question.

**REVISE QUESTION  
TO SEARCH FOR  
CAUSES AND  
EFFECTS OF THE  
TOPIC**

A rectangular box with wavy top and bottom edges, intended for writing a refined research question.

**REVISE QUESTION  
TO SEARCH FOR A  
COMPARISON OF  
THE TOPIC AND  
SOMETHING ELSE**

A rectangular box with wavy top and bottom edges, intended for writing a refined research question.

Name\_\_\_\_\_ Class\_\_\_\_\_

## Using Different Sources

Topic: \_\_\_\_\_

Type of Source	Found Information	Found Information	Found Information
<b>Books</b> 1. _____ 2. _____ 3. _____			
<b>Websites</b> 1. _____ 2. _____ 3. _____			
<b>Subscription Databases</b> 1. _____ 2. _____ 3. _____			
<b>Multimedia</b> 1. _____ 2. _____ 3. _____			
<b>Graphs and Charts</b> 1. _____ 2. _____ 3. _____			
<b>Maps and Diagrams</b> 1. _____ 2. _____ 3. _____			



Name\_\_\_\_\_ Class\_\_\_\_\_

## The Effects of Different Perspectives on Issues/Topics

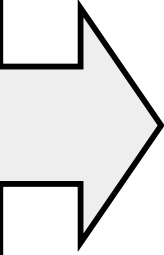
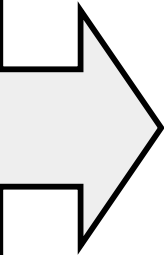
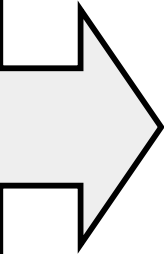
<b>Issue/Topic:</b>	<b>One perspective:</b>
	<b>Why he or she thinks this:</b>
	<b>Someone else's perspective:</b>
	<b>Why he or she thinks this:</b>

**What I think about the two perspectives:**

Name \_\_\_\_\_ Class \_\_\_\_\_

## Point of View Influences Interpretation of Information

Topic: \_\_\_\_\_

<b>Idea #1:</b> 	<b>My interpretation (What I think this means):</b>	<b>How someone with an opposite point of view might have interpreted this idea:</b>
<b>Idea #2:</b> 	<b>My interpretation (What I think this means):</b>	<b>How someone with an opposite point of view might have interpreted this idea:</b>
<b>Idea #3:</b> 	<b>My interpretation (What I think this means):</b>	<b>How someone with an opposite point of view might have interpreted this idea:</b>

Name\_\_\_\_\_Class\_\_\_\_\_

## **CEI: Claim, Evidence and Interpretation**


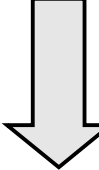
**Claim:**

**Evidence:** Examples, quotes, textual references that support the claim ...

**Interpretation:** An explanation and/or analysis of the evidence

Name\_\_\_\_\_ Class\_\_\_\_\_

## Drawing Conclusions from Information

Facts	Inferences		
			
			
<table border="1"><thead><tr><th data-bbox="201 1194 1451 1245">Conclusion</th></tr></thead><tbody><tr><td data-bbox="201 1245 1451 1759"></td></tr></tbody></table>		Conclusion	
Conclusion			

Name\_\_\_\_\_ Class\_\_\_\_\_

## My Research Project

**Why am I doing  
this research?  
What do I want  
to show in the  
end?**



**Who am I  
researching for?  
Who might see my  
final product?**



Name\_\_\_\_\_ Class\_\_\_\_\_

## Strengths and Goals

**What I did well:**

1.

2.

3.

**Why was it good?**

1.

2.

3.

**What could have been better:**

1.

2.

3.

**How can I improve it?**

1.

2.

3.

# Information Fluency: Priority Benchmark Skills and Assessments

## Grade 9

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
<b>STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING</b>		
Inquiry Phase: Connect	9.1 Identifies key words, concepts, and synonyms, both stated and implied, for topic and uses them to further research. 9.2 Develops a schema or mind map to express the big idea and the relationships among supporting ideas and topics of interest.	9.1 Identifying Key Words, Concepts, Synonyms and Related Terms  9.2 Mind Mapping
Inquiry Phase: Wonder		
Inquiry Phase: Investigate	9.3 Takes notes using one or more of a variety of note taking strategies, including reflecting on the information (e.g., graphic organizers, two-column notes).	9.3 Notetaking Grid 9.3 Reflective Notetaking 9.3 Notetaking to Answer Questions 9.3 Notes on Main Ideas and Supporting Evidence 9.3 Notes on Main Ideas and Supporting Evidence - <i>Example</i>
Inquiry Phase: Construct	9.4 Organizes information independently, deciding the structure based on the relationships among ideas and general patterns discovered.	9.4 Organizing Information – <i>Example</i> 9.4 Organizing Information - Rubric
Inquiry Phase: Express		
Inquiry Phase: Reflect	9.5 Identifies own strengths and sets goals for improvement.	9.5 My Strengths in the Inquiry Process 9.5 My Strengths in the Inquiry Process - <i>Example</i>
<b>STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH</b>		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
<b>STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY</b>		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name \_\_\_\_\_ Class \_\_\_\_\_

## Identifying Key Words, Concepts, Synonyms and Related Terms

Effective researchers use a strategy of broadening their search for information by identifying key words, concepts, synonyms, and related terms. You can find these alternative search terms by consulting an **overview article** in a magazine or encyclopedia, a **thesaurus**, a **dictionary**, **search engines**, and **subject headings** in the library catalog. You should start this process as soon as you decide on a topic or research question and continue to build your list throughout your inquiry.

<b>Key Words</b> (Words that convey the main ideas of your topic or questions)	<b>Concepts</b> (Words that describe the big ideas to which your topic is related)	<b>Synonyms</b> (Words that mean the same as your key words)	<b>Related Terms</b> (Words that are closely associated with key words, but not substitutes like synonyms)
<b>Example Topic/Question:</b> How will global warming affect life in New York City during the 21 <sup>st</sup> century?			
Ex: global warming, climate, greenhouse gases, solar radiation	Ex: ecological system, environment	Ex: earth temperature, greenhouse effect	Ex: climate change, earth's atmosphere
<b>Your Topic/Question:</b>			
<b>Key Words</b>	<b>Concepts</b>	<b>Synonyms</b>	<b>Related Terms</b>



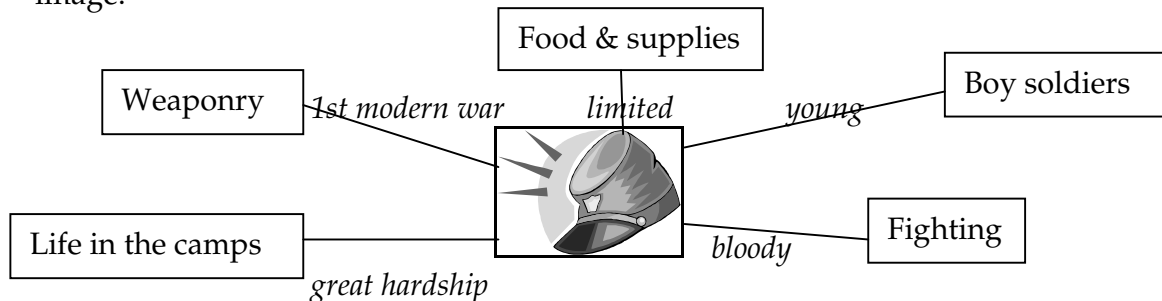
## Mind Mapping

Mind Mapping is a method of creating a visual image that communicates a big idea, supporting ideas, and relationships among ideas. Researchers use mind maps to brainstorm a picture of their inquiry topic, to figure out the aspects of the topic that are most interesting or open to inquiry, and to think through definitions, examples, causes, effects, and questions.

### **What does a mind map look like?**

A mind map has an image of the main idea in the center, with 5-10 ideas that relate to the main idea revolving around the center, but connected by lines labeled with words that express the relationship between the two ideas.

For example, a mind map of the “Life of a Soldier in the American Civil War” might have an image of a soldier’s cap in the center, with ideas like “boy soldiers,” “food and supplies,” “weaponry,” “life in the camps,” and “fighting” surrounding the center image.



### **Process for Creating a Mind Map**

1. In the center of your paper or screen, draw a symbol or image that represents the main idea.
2. Draw branches from the main idea to 5-10 subtopics that you have gathered from prior knowledge or background information. The subtopics can be expressed as words or images.
3. Label the branch lines with descriptive words or verbs to express the relationship between the ideas.
4. You may decide to extend the mind map by brainstorming smaller topics that relate to each subtopic.
5. You can use color, different types of print or graphics, and variations in size to ensure that your main ideas and relationships are clear.
6. Be creative! This is a chance to clarify an overall picture of your inquiry topic and figure out what **you** want to research in more detail.

**Try these sites for free mind mapping tools:**

- <http://mywebspiration.com/>
- <http://www.mindmeister.com/>
- <http://www.mindomo.com/>

Notetaking Grid

Topic: \_\_\_\_\_

	Resource (Website)	Information	Vocabulary – Key Words	Paraphrase
Key Question:				
Key Question:				

Name\_\_\_\_\_ Class\_\_\_\_\_

### Reflective Notetaking

Question:		
Source/Pg	Notes in Own Words – Answers to Question	Reactions (Questions, Opinions, Responses, Gaps, Inaccuracies)

Name \_\_\_\_\_ Class \_\_\_\_\_

**Notetaking to Answer Questions**

Topic:	Key Question:	Key Question:	Key Question:
Resource:	Evidence:	Evidence:	Evidence:
Evaluation of Evidence:			

Name \_\_\_\_\_ Class \_\_\_\_\_

**Notes on Main Ideas and Supporting Evidence**

<b>Key Question/Topic</b> <i>Write down your topic sentence and/or question you are attempting to find information to answer/prove</i>	<b>Citation Information for Source</b> <i>Write down the information you will need to write a bibliographic citation for your source</i> <i>(<a href="http://www.citationmachine.net">www.citationmachine.net</a>)</i>	<b>Main Idea of Source</b> <i>What is the main idea from your source?</i> <i>How does it relate to your key question/topic?</i>	<b>Supporting Evidence/Details</b> <i>What evidence is offered to back up the main ideas?</i>	<b>Notes for Followup in Other Sources</b> <i>What questions are raised or left unanswered? What conflicts in supporting evidence did you find?</i>

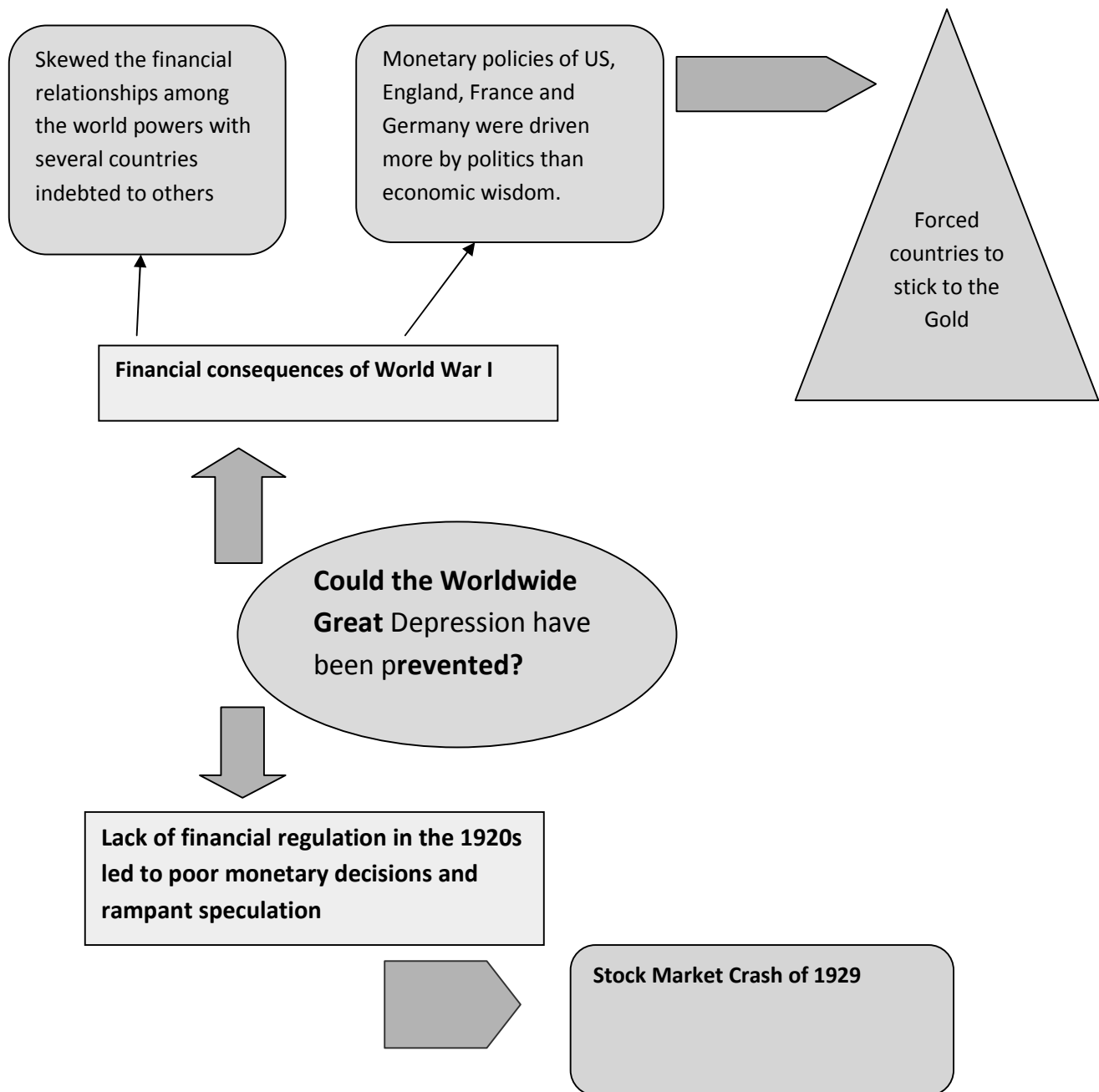
Name \_\_\_\_\_

Class \_\_\_\_\_

## Notes on Main Ideas and Supporting Evidence - Example

<b>Key Question/Topic</b> <i>Write down your topic sentence and/or question you are attempting to find information to answer/prove</i>	<b>Citation Information for Source</b> <i>Write down the information you will need to write a bibliographic citation for your source</i> <a href="http://www.citationmachine.net">www.citationmachine.net</a>	<b>Main Idea of Source</b> <i>What is the main idea from your source? How does it relate to your key question/topic?</i>	<b>Supporting Evidence/Details</b> <i>What evidence is offered to back up the main ideas?</i>	<b>Notes for Followup in Other Sources</b> <i>What questions are raised or left unanswered? What conflicts in supporting evidence did you find?</i>
Global Warming  <i>Why do some people still believe the prevailing view of global warming is a myth?</i>	"Global warming labeled a 'scam'; Documentary blames the sun.(PAGE ONE)." <u>The Washington Times</u> (March 6, 2007): A01. <u>Junior Edition</u> . Gale. NYC CSD #79 Legacy HS for Integrated. 14 Nov. 2007 < <a href="http://find.galegroup.com/itx/start.do?prodId=STOJ">http://find.galegroup.com/itx/start.do?prodId=STOJ</a> > <b>Gale Document Number:</b> CJ160176039	With a packet of claims that are almost certain to defy conventional wisdom, a television documentary to be aired in Britain this week condemns man-made global warming as a myth that has become "the biggest scam of modern times."  The program titled "The Great Global Warming Scandal" and set for screening by TV Channel 4 on Thursday dismisses claims that high levels of greenhouse gases generated by human activity causes climate change. Instead, the program suggests that the sun itself is the real culprit.  <i>It relates to my topic because major new sources are still reporting on the idea that global warming is a myth</i>	Channel 4 says that the program features "an impressive roll-call of experts," including nine professors, who are experts in climatology, oceanography, meteorology, biogeography and paleoclimatology.  Scientists in the Channel 4 documentary cite what they claim is another discrepancy involving conventional research, saying that most of the recent global warming occurred before 1940, after which temperatures around the world fell for four decades.  It also questions an assertion by the U.N. Intergovernmental Panel on Climate Change's report that it was backed by some 2,500 of the world's leading scientists.	A documentary that aired on TV in Britain claims that global warming is a "scam" and is really caused by the sun.  The program claims to have evidence from renowned scientists who refute the prevailing idea that greenhouse gases are the main culprit in global warming. They point to the world getting colder after 1940 when industrialization took off and to the fact that some of the scientists the UN claims support global warming do not.

### Organizing Information -- Example



Discovered Patterns: The financial costs of World War I lead to poor monetary decision worldwide based on politics and revenge rather than sound economics. At the same time, the lack of financial regulation worldwide and the decision to stick with the gold standard, lead to speculation in the US resulting in the Stock Market Crash and subsequent financial shocks around the globe.

Name \_\_\_\_\_ Class \_\_\_\_\_

### **Organizing Information - Rubric**

	4	3	2	1
Graphic organizer/Structure	Chosen structure clearly displays the main ideas and supporting evidence and firmly supports the thesis	Chosen structure displays the main ideas but lacks supporting evidence; the ideas do not prove the thesis	Chosen structure does not differentiate between main and supporting ideas and does not offer clear support for the thesis	Unclear why structure was chosen; no structure selected
Relationships among ideas	Relationships among topic ideas are clear and evident	Relationships among ideas are somewhat clear and evident	Relationships among ideas are often unclear and rarely evident	Relationships among ideas are not clear or evident
Discovered patterns among topic ideas	Patterns/trends among topic ideas are stated and apparent (e.g., cause and effect, order of importance)	One or two patterns/trends among topic ideas are stated and apparent	Patterns/trends among topic ideas are not visibly stated and apparent	No evidence of patterns/trends among topic ideas is found



Name \_\_\_\_\_ Class \_\_\_\_\_

### **My Strengths in the Inquiry Process**

<b>My Strengths in the Inquiry Process</b>	<b>My Goals for Improving My Skills</b>
<b>Connect:</b> (Connecting to own interests, prior knowledge, and background knowledge)	<b>Connect:</b>
<b>Wonder:</b> (Asking questions, making predictions, forming tentative thesis)	<b>Wonder:</b>
<b>Investigate:</b> (Finding and evaluating information to answer questions)	<b>Investigate:</b>
<b>Construct:</b> (Constructing new understandings, forming opinions, drawing conclusions)	<b>Construct:</b>
<b>Express:</b> (Applying new understandings to new context; expressing new ideas to share with others)	<b>Express:</b>
<b>Reflect:</b> (Reflecting on own learning; asking new questions)	<b>Reflect:</b>
<b>Other:</b>	<b>Other:</b>

### **My Strengths in the Inquiry Process - Example**

<b>My Strengths in the Inquiry Process</b>	<b>My Goals for Improving My Skills</b>
<b>Connect:</b> (Connecting to own interests, prior knowledge, and background knowledge)  I am able to connect what I research to my own life experiences	<b>Connect:</b>  I need to improve on making connections between what I am learning to prior knowledge
<b>Wonder:</b> (Asking questions, making predictions, forming tentative thesis)  I formulate excellent essential and inquiry questions	<b>Wonder:</b>  I can always refine and reformulate my questions to improve their quality
<b>Investigate:</b> (Finding and evaluating information to answer questions)  I excel at using multiple sources and point-of-view in my research	<b>Investigate:</b>  I need to work on generating good key word terms to locate the exact information I need
<b>Construct:</b> (Constructing new understandings, forming opinions, drawing conclusions)  I see the patterns and relationships among ideas quickly	<b>Construct:</b>  It is hard for me make decisions about what information and evidence to include and what to leave out to support my argument(s)
<b>Express:</b> (Applying new understandings to new context; expressing new ideas to share with others)  I love using web 2.0 tools to enhance my presentations/products and engage the audience	<b>Express:</b>  It is difficult for me to use traditional means (a research paper) to present my research and conclusions
<b>Reflect:</b> (Reflecting on own learning; asking new questions)  I am good on reflecting on what I did well and what I need to improve	<b>Reflect:</b>  Sometimes, my reflection does not translate into action
<b>Other:</b>  I work well with others	<b>Other:</b>  I need to not always take the leadership role in groups

# Information Fluency: Priority Benchmark Skills and Assessments

## Grade 10

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
<b>STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING</b>		
Inquiry Phase: Connect	10.1 Develops and refines the topic, problem, or question independently to arrive at a worthy and manageable topic for inquiry.	10.1 Exploring Background Information to Refine Research Topic 10.1 Hooking to an Inquiry Topic 10.1 Connecting to a Manageable Topic
Inquiry Phase: Wonder	10.2 Refines questions to provide a framework for the inquiry and to fulfill the purpose of the research.	10.2 Refining Research Questions 10.2 Developing Focus Questions at Different Levels of Thought
Inquiry Phase: Investigate	10.3 Conducts advanced Web searches using Boolean logic and other sophisticated search functions.	10.3 Advanced Web Searching 10.3 Advanced Searching - Review
Inquiry Phase: Construct	10.4 Draws clear and appropriate conclusions supported by evidence and examples.	10.4 Drawing Conclusions Supported by Evidence 10.4 Drawing Conclusions from Looking at Multiple Perspectives
Inquiry Phase: Express	10.5 Cites all sources used according to standard style formats.	10.5 Bibliography Worksheet 10.5 Sample Bibliography Entries – MLA Style
Inquiry Phase: Reflect	10.6 Records individual experience of the inquiry process – the hardest part, best part, skills learned, insights experienced, etc. with suggestions for future improvements.	10.6 Individual Experience of Inquiry
<b>STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH</b>		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
<b>STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY</b>		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name \_\_\_\_\_ Class \_\_\_\_\_

### Exploring Background Information to Refine Research Topic

By reading background information, you will be able to learn enough about your topic to figure out what is most interesting for you to research. Not all sources offer general background, summary information.

To select a source that provides general background knowledge and evaluate its usefulness, use the following checklist:

Source Information:		
Criteria	Clues	Your Evaluation
Overview, summary information	<ul style="list-style-type: none"><li>• Focused on big idea, not specific examples</li><li>• General encyclopedia article</li><li>• Summary statements</li></ul>	
Attention to many aspects of topic	<ul style="list-style-type: none"><li>• Table of contents</li><li>• Headings</li><li>• Navigation bar</li></ul>	
Accurate, credible, up-to-date information	<ul style="list-style-type: none"><li>• Author or publisher has authority and can be believed</li><li>• Copyright date is current enough for the topic</li><li>• Information seems to match what is previously known and evidence supports its accuracy</li></ul>	

What prior knowledge does this source confirm? What new ideas were learned?

Main ideas I knew before that were confirmed:

New ideas I discovered:

What did you discover that interests you to pursue through further inquiry?

Name \_\_\_\_\_ Class \_\_\_\_\_

## **Hooking to an Inquiry Topic**

### **Emotional Hook:**

I can relate to this topic because...

I have a personal connection to this topic because...

I feel that \_\_\_\_\_ is \_\_\_\_\_ and I want to do  
something to change it by \_\_\_\_\_ (advocacy approach)

*I will seek out reference/secondary sources to provide me with the context and larger issues of the topic. Then, I will locate primary sources (family interviews, images, video, letters, emails, audio/podcasts, music, quotations, write from my own experience, etc.) to bolster the evidence and provide emotional context for my viewpoint/argument/thesis.*

### **Intellectual/Cerebral Hook:**

This topic reminds me/is similar to \_\_\_\_\_ that I found interesting  
because \_\_\_\_\_

I am curious about \_\_\_\_\_ and \_\_\_\_\_

*I will seek out background information from a variety of sources to gain context for further exploration and increase my understanding of the topic in order to gather credible evidence to support my thesis, present multiple viewpoints/arguments, and demonstrate my own learning growth.*

### **Problem-Solving Hook:**

How does...?

Why can't...?

What will happen if. . .?

*I will gather facts to comprehend all facets of the topic and to consider flaws in my hypothesis. Then, I will brainstorm as many ideas/alternative scenarios to compare and contrast their strengths and weaknesses to then find a credible solution(s) to the essential question.*

## Connecting to a Manageable Topic

What is my topic now?

### Personal Connection

- € I have a personal connection to the topic
- € This topic reminds me / is similar to another topic I enjoyed reading about / researching

Questions:

### Background Information

- € I am going to interview family or friends about the event / topic; write from my own experience; take the point-of-view of someone who was affected by this event / topic
- € I will look in a book and / or encyclopedia to obtain background information on the topic to evaluate whether there is enough information, too much, or just the right amount to pursue research

Questions:

### Connection to Intriguing Idea

- € I am going to use background information to get context about the topic and to find issues that I want to know more about
- € I will figure out my own point of view and look for sources that confront that point of view as well as sources that reinforce my perspective

Questions:

### Narrowing to a Manageable Topic

What aspect of topic most interests me?

What is discussed in the background information that I want to learn more about?

What aspect of the topic will allow me to draw my own conclusions, form my own opinions based on the evidence, and apply ideas to new situations?

What is my new topic?

## Refining Research Questions

Topic:

List 3-5 research questions for your topic:

- 
- 
- 
- 
- 

Use the checklist below to evaluate your range of questions. Do your questions as a group satisfy the following criteria?

CRITERIA FOR GOOD RESEARCH QUESTIONS:	YES	NO
<b>Narrow</b> and <b>specific</b> enough to be explored thoroughly for this assignment. <i>[ex: What was the role of the French Underground during World War II?]</i>		
<b>Deep</b> enough that you will need multiple sources to answer them. <i>[ex: What is the impact of cyberbullying on society?]</i>		
<b>Complex</b> enough that they require multiple points of view. <i>[ex: How do attitudes toward gun control influence public policy?]</i>		
<b>Balanced</b> between fact and interpretation – questions require factual evidence and yet offer the opportunity for interpreting the evidence, forming opinions, and drawing conclusions. <i>[ex: Why should we care about global warming?]</i>		
<b>Structured</b> around different levels of thought (not only who, what, when, where questions, but also how, why, what caused, and what if questions). <i>[What were the circumstances surrounding the Emancipation Proclamation? How did the Emancipation Proclamation affect the country and people of the time?]</i>		
<b>Varied</b> enough to elicit the richness of the topic. <i>[ex: Questions that ask causes, effects, recommendations, solutions, points of view]</i>		

Revise your questions so that your group of questions together satisfies each of the criteria.

- 
- 
- 
- 
-

Name\_\_\_\_\_ Class\_\_\_\_\_

### **Developing Focus Questions at Different Levels of Thought**

Topic:

Essential Question:

LEVEL OF THOUGHT	QUESTIONS
Knowledge: Recalling facts, terms, basic concepts and answers	
Comprehension: Understanding facts and ideas	
Application: Applying acquired knowledge, facts, techniques and rules in a different way	
Analysis: Examining and breaking information into parts; making inferences	
Synthesis: Combining elements in a new pattern or proposing alternate solutions	
Evaluation: Making judgments about information, validity of ideas or quality of work	



Name \_\_\_\_\_ Class \_\_\_\_\_

## **Advanced Web Searching**

What is your research topic or question? \_\_\_\_\_

What are the key words or phrases? \_\_\_\_\_

Related Words? \_\_\_\_\_

.....

**Boolean:** *This search strategy involves using more than one term to narrow or expand your result and combining the terms with Boolean operators (AND, OR, and NOT). Go to this site for an introduction: <http://lib.colostate.edu/tutorials/boolean.html>*

### **AND: Limits Search**

*Most of the time, you will want to limit your results to make them more manageable and of higher quality. By adding **AND** (or using + in some search engines) between terms, you are limiting your search to only those items described by all the terms you list. Some search engines (e.g., Google) use an implied AND, so that they automatically search for the combination of the words you enter in a string.*

Type in your key terms and write down the number of results. \_\_\_\_\_

Now, add other search terms to make your search more specific. (e.g., *Amazon rainforest destruction rate*). Write down the number of results. \_\_\_\_\_

What search string did you type in? \_\_\_\_\_

Why is there a difference? \_\_\_\_\_

### **OR: Expands Search**

*If you have a very specific keyword, you may not be getting enough results or the type of information that you want. Sometimes, it is better to increase the range of your results by adding **OR** between terms.*

Type in your key terms and write down the number of results. \_\_\_\_\_

Now, type in **OR** and add another search term (e.g., *death penalty OR capital punishment*). Write down the number of results. \_\_\_\_\_

What did you type in? \_\_\_\_\_

Why is there a difference? \_\_\_\_\_

## Advanced Searching - Review

Advanced searching involves using more than one term to narrow or expand your results.

### 1. AND

Using **and** between terms (pollution **AND** air):

- ☐ Gives you more results
- ☐ Gives you fewer results
- ☐ Has no effect

Why?

\_\_\_\_\_

### 2. OR

Using **or** between terms (pollution **OR** smog):

- ☐ Gives you more results
- ☐ Gives you fewer results
- ☐ Has no effect

Why?

\_\_\_\_\_

### 3. EXACT PHRASE

What does putting quotations around your phrase/sentence do ("**economic crisis**")?

- ☐ Your results must have those terms in them somewhere
- ☐ You will increase your results
- ☐ The terms need to be found together at all times in the same order

Why is this helpful? \_\_\_\_\_

\_\_\_\_\_

### 4. NOT/Excluding terms

Why is using **not** between terms helpful to your search?

- ☐ It gives you more results
- ☐ It eliminates words that might interfere with your search
- ☐ It gives you results from higher-quality sources

### YOUR TURN

What is your topic?

List the title of one good source you found.

\_\_\_\_\_

What did you type in to find the source (the exact string)?

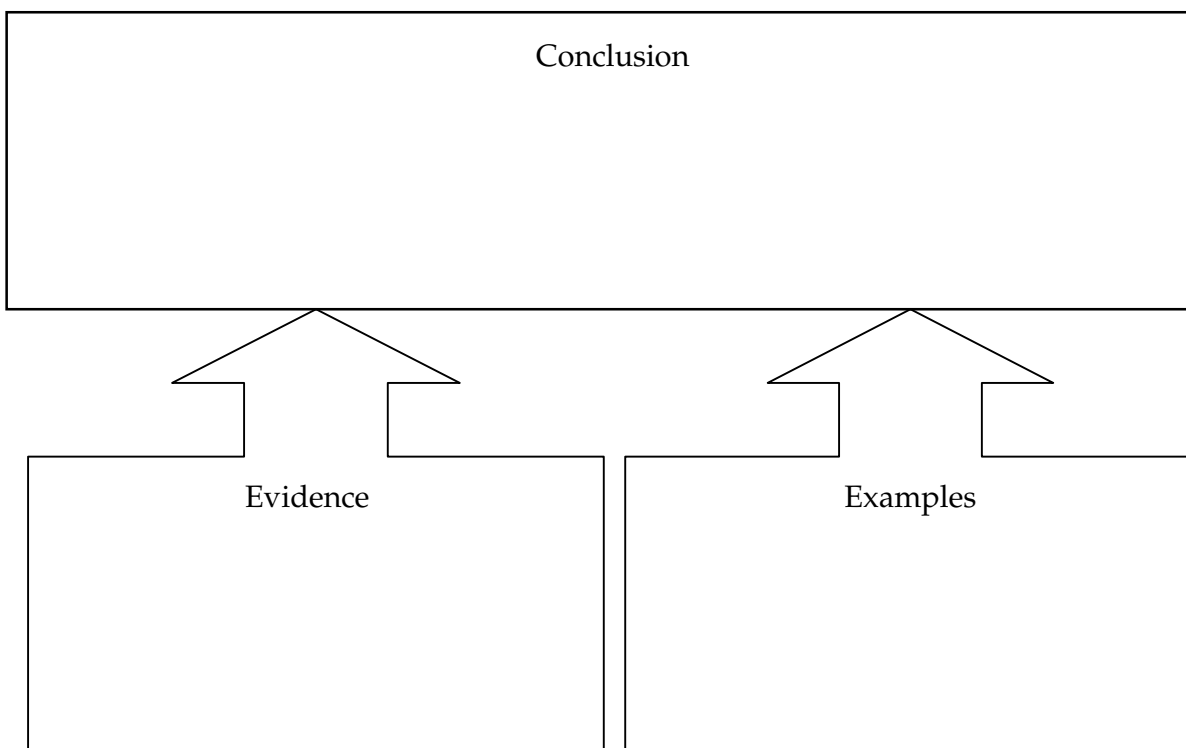
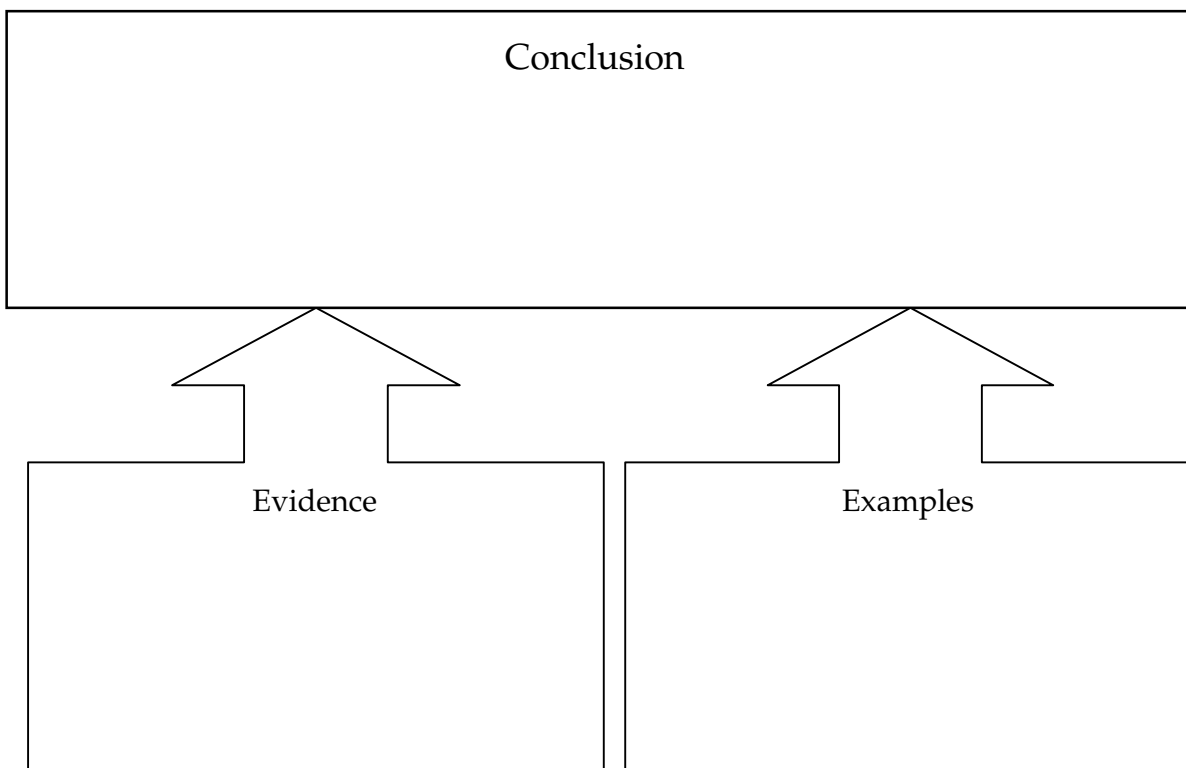
\_\_\_\_\_

Why did you structure your search in that way?

\_\_\_\_\_

Name\_\_\_\_\_ Class\_\_\_\_\_

**Drawing Conclusions Supported by Evidence**



Name \_\_\_\_\_ Class \_\_\_\_\_

**DRAWING CONCLUSIONS FROM LOOKING AT MULTIPLE PERSPECTIVES**

Question or Issue: \_\_\_\_\_

INTERPRETATION FROM PERSPECTIVE OF _____	INTERPRETATION FROM PERSPECTIVE OF _____
Facts Added from this Perspective (Source, Page)	Facts Added from this Perspective (Source, Page)

UNDISPUTED FACTS (Source, Page)
---------------------------------

Opinions (Source, Page)

Opinions (Source, Page)

YOUR INTERPRETATION AND CONCLUSIONS

Name\_\_\_\_\_ Class\_\_\_\_\_

## **Bibliography Worksheet**

To generate a bibliography, capture the following information for different types of sources. Then you may use a free online citation generator to format the bibliographic entry (for example, [www.easybib.com](http://www.easybib.com); [www.bibme.org](http://www.bibme.org); or [www.workscited4u.com](http://www.workscited4u.com)).

<b>Book (one author)</b>	
Author's Last Name, First Name	
Title of Book	
City of Publication	
Publisher	
Copyright Year	
<b>Magazine Article</b>	
Author's Last Name, First Name	
Title of Article	
Name of Magazine	
Volume and Issue of Magazine	
Date of Magazine	
Page Numbers	
URL (if online)	
Retrieval Date (if online)	
<b>Encyclopedia Article</b>	
Author's Last Name, First Name	
Title of Article	
Name of Encyclopedia	
Editor of Encyclopedia (if available)	
Volume, Pages	
City of Publication	
Publisher	
Copyright Year	
<b>Website</b>	
Author's Last Name, First Name	
Title of Web page	
Title of Website (if different)	
Publisher of Website	
URL	
Last Updated Date	
Retrieval Date	

## Sample Bibliography Entries – MLA Style

### **Book**

Miller, Debra A. *Global Warming*. Detroit: Greenhaven, 2008.

### **Website**

"Climate Change | U.S. EPA." *US Environmental Protection Agency*, 1 October 2010. Web. 4 October 2010. <<http://www.epa.gov/climatechange/index.html>>.

### **Database**

"Global warming labeled a 'scam'; Documentary blames the sun." The Washington Times 6 March 2007: A01. Junior Edition. Gale. Web. 13 July 2010. <<http://find.galegroup.com/itx/start.do?prodId=STOJ>>.

### **Online Encyclopedia (Grolier)**

Anthes, Richard A. "Global Warming." *Grolier Multimedia Encyclopedia*. 2010. Grolier Online. 5 Oct. 2010 <<http://gme.grolier.com/article?assetid=0121375-0>>.

### **Digital Image**

*Global Warming: Causes and Effects*. Digital image. *Thinkquest.org*. Oracle Thinkquest Education Foundation. Web. 13 July 2010. <<http://library.thinkquest.org/08aug/02429/assets/What-is-global-warming-imgbig.jpg>>.

### **Blog**

"Global Warming Watch." Web log post. *Global Warming Watch*. Blogspot.com. Web. 13 July 2010. <<http://globalwarmingwatch.blogspot.com/>>.

### **Video**

*What Is Global Warming Video. 5min - Find the Best How To, Instructional and DIY Videos â*. 17 Sept. 2008. Web. 13 July 2010. <<http://www.5min.com/Video/What-is-Global-Warming-38356558>>.

### **Citation Websites:**

<http://citationmachine.net/>

<http://www.easybib.com/>

<http://www.noodletools.com/>

<http://www.bibme.org/>

<http://library.duke.edu/research/citing/index.html>

<http://www.scripps.ohiou.edu/pwestfall/info/xtras/primer.html>

## Individual Experience of Inquiry

### Stages of the Inquiry Cycle:

- Connect:** Connecting to own interests, prior knowledge, and background knowledge
- Wonder:** Asking questions, making predictions, forming tentative thesis
- Investigate:** Finding and evaluating information to answer questions
- Construct:** Constructing new understandings, forming opinions, drawing conclusions
- Express:** Applying new understandings to new context; expressing new ideas to others
- Reflect:** Reflecting on own learning; asking new questions

Hardest Part of Inquiry – Why?	Best Part of Inquiry – Why?	Skills Learned / Insights Experienced

**Information Fluency: Priority Benchmark Skills and Assessments**  
**Grade 11**

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING		
Inquiry Phase: Connect		
Inquiry Phase: Wonder	11.1 Plans inquiry to systematically test hypothesis or to gather evidence to validate thesis.	11.1 Gathering Evidence to Support Thesis 11.1 Gathering Evidence to Support Thesis - Example
Inquiry Phase: Investigate	11.2 Pursues a balanced perspective by evaluating information based on authority, accuracy, point of view, and reliability.  11.3 Uses the organizational features of a book as well as abstracts, tables, charts and first and last chapters to locate main ideas, specific supporting evidence, and a balanced perspective.	11.2 Source Comparison  11.3 Using Organizational Features of a Book to Locate Information
Inquiry Phase: Construct	11.4 Presents different perspectives with evidence for each.	11.4 Viewpoints/Beliefs/Actions 11.4 Developing a Line of Argument 11.4 Historical Perspective Taking/Empathy
Inquiry Phase: Express	11.5 Chooses the most appropriate format, tone and language to communicate ideas clearly in real world formats to different audiences.	11.5 Communicating Ideas to an Audience
Inquiry Phase: Reflect		
STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		



Name \_\_\_\_\_ Class \_\_\_\_\_

### Gathering Evidence to Support Thesis

**My thesis...**

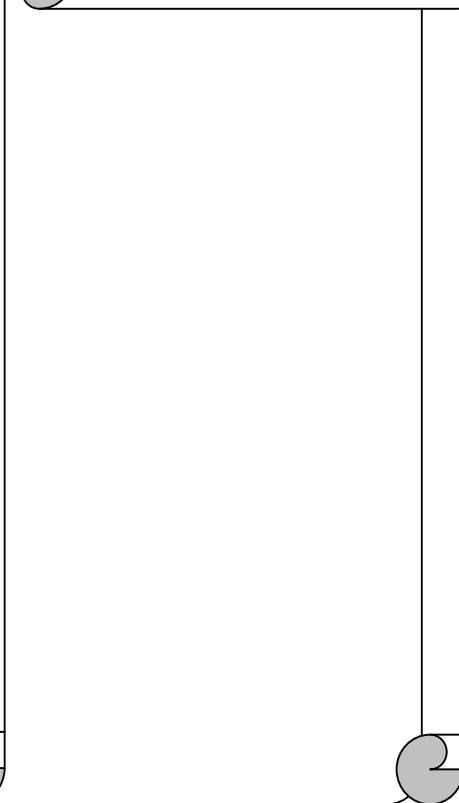
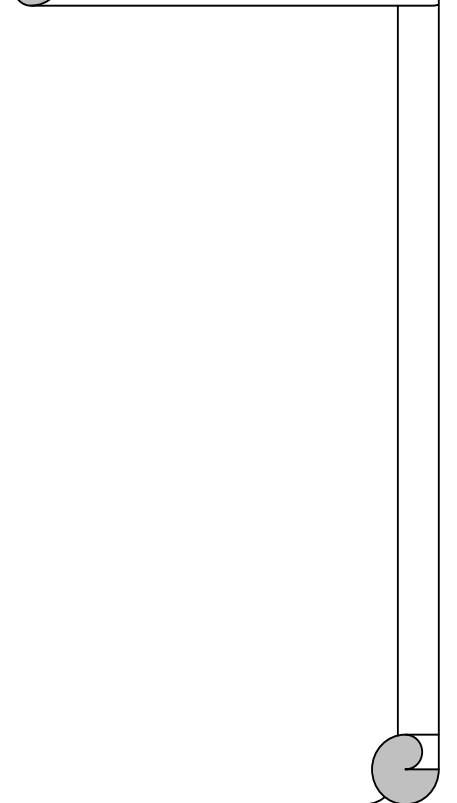
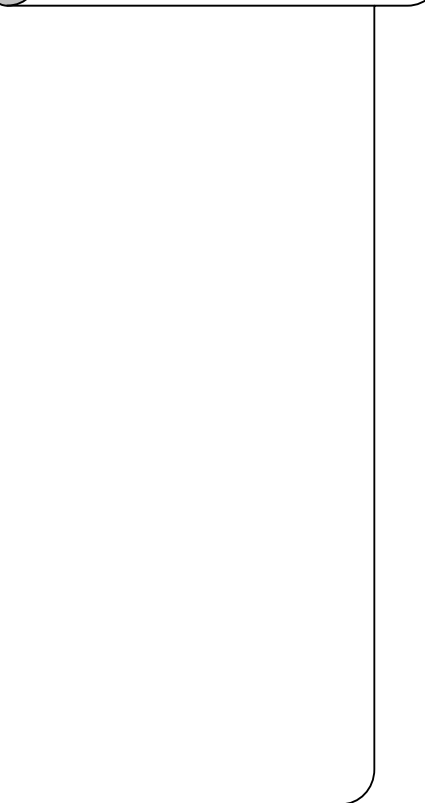


### **The Evidence I Need to Prove my Thesis**

**Categories of Facts**

**Categories of Opinions**

**Whose Point of View**

Categories of Facts	Categories of Opinions	Whose Point of View
		

### Gathering Evidence to Support Thesis -- Example

**My thesis...**

Motorcycles are more dangerous than cars; therefore, the minimum driving age for motorcycles should be 25.

### **The Evidence I Need to Prove my Thesis**

Categories of Facts	Categories of Opinions	Whose Point of View
<p>Health:</p> <p>Death rate – Cars</p> <p>Death rate – Motorcycles</p> <p>Legal:</p> <p>Current laws – states</p> <ul style="list-style-type: none"> <li>• Age</li> <li>• Equipment</li> <li>• Speed</li> </ul> <p>Insurance</p> <p>Economics</p> <ul style="list-style-type: none"> <li>• Cost to society</li> </ul> <p>Trends over time</p>	<p>Psychological reasons for riding motorcycles</p> <p>Cultural/social reasons for riding motorcycles</p> <p>Economic reasons for riding motorcycles</p> <p>Law enforcement</p>	<p>Motorcycle riders</p> <p>Insurance companies</p> <p>Hell’s Angels</p> <p>Motorcycle manufacturers</p> <p>Automobile manufacturers</p> <p>Doctors/Health providers</p> <p>Teenagers/Young people</p>

Name \_\_\_\_\_ Class \_\_\_\_\_

### Source Comparison

<b>SOURCE:</b>	<b>SOURCE:</b>	<b>SOURCE:</b>
<b>Viewpoint:</b> <i>What is the perspective of the author or publisher?</i>	<b>Viewpoint:</b> <i>What is the perspective of the author or publisher?</i>	<b>Viewpoint:</b> <i>What is the perspective of the author or publisher?</i>
<b>Authority:</b> <i>Why can we believe this source?</i>	<b>Authority:</b> <i>Why can we believe this source?</i>	<b>Authority:</b> <i>Why can we believe this source?</i>
<b>Accuracy:</b> <i>How up-to-date and accurate is the source?</i>	<b>Accuracy:</b> <i>How up-to-date and accurate is the source?</i>	<b>Accuracy:</b> <i>How up-to-date and accurate is the source?</i>
<b>Reliability:</b> <i>Can this source be relied upon to present high-quality information on all topics and every time?</i>	<b>Reliability:</b> <i>Can this source be relied upon to present high-quality information on all topics and every time?</i>	<b>Reliability:</b> <i>Can this source be relied upon to present high-quality information on all topics and every time?</i>
<b>Notes:</b> <i>What are special features about this source?</i>	<b>Notes:</b> <i>What are special features about this source?</i>	<b>Notes:</b> <i>What are special features about this source?</i>

Name \_\_\_\_\_ Class \_\_\_\_\_

### **Using Organizational Features of a Book to Locate Information**

Most nonfiction books contain organizational features that will help you locate information to answer your research questions quickly and effectively. Each feature has a specific purpose and, therefore, leads you to different types of information.

Analyze the organizational features of a nonfiction book on your topic by using the following guidelines. From this quick analysis, you should be able to determine the usefulness of the book for your research.

Name of Book: \_\_\_\_\_

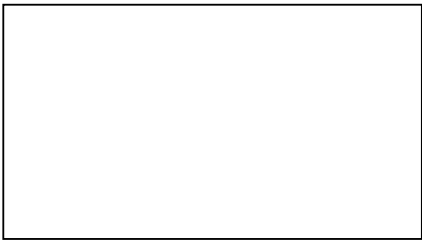
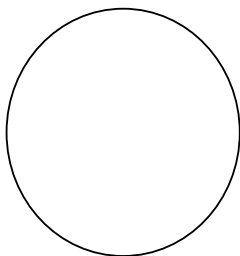
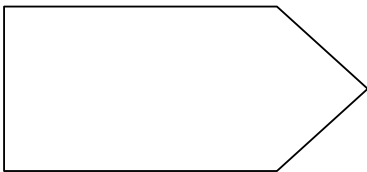
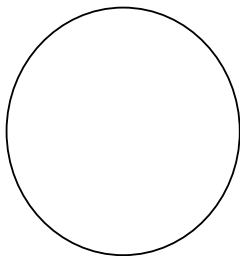
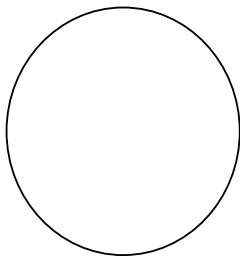
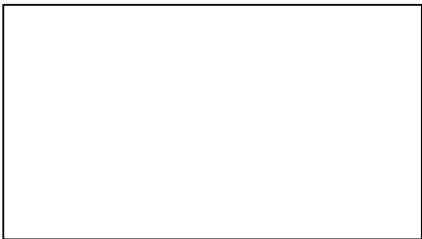
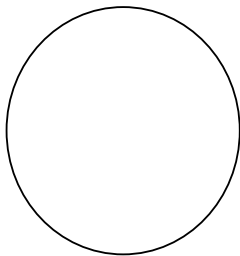
<b>Organizational Feature</b>	<b>Information Located with this Feature</b>	<b>Usefulness of this Information for your Research</b>
Table of Contents		
Index		
Abstract/ Inside Cover		
Introduction or Foreword		
First and Last Chapter		
Chapter Titles, Headings, Subheadings		
Tables, Charts, Diagrams		
Illustrations, Graphics		

**Viewpoints / Beliefs / Actions**

**Viewpoints of:**

**Beliefs**

**Actions**



Name \_\_\_\_\_ Class \_\_\_\_\_

**Developing a Line of Argument**  
**Multiple Perspectives: Point/Counterpoint**

Issue or Question:	
Perspective of _____	Perspective of _____
Point:	Counterpoint:
Point:	Counterpoint:
Point:	Counterpoint:
Point:	Counterpoint:
Point:	Counterpoint:
Point:	Counterpoint:
My own perspective is. . .because. . .	

Name\_\_\_\_\_ Class\_\_\_\_\_

**Historical Perspective Taking / Empathy**

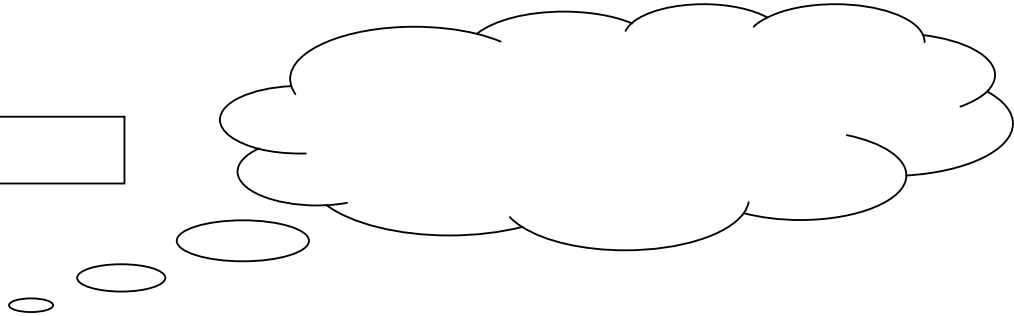
Decision / Action:

DECISION OR ACTION	OPPOSING PERSPECTIVE
Who made the decision/action?	Who was against this decision/action?
Why was the decision/action made (cite the evidence)?	Why was this decision/action opposed (cite the evidence)?
What were the consequences of the decision/action? <u>Short-term:</u>  <u>Long-term:</u>	
Now that you can look back with hindsight, what do you think about the decision/action?	

Name \_\_\_\_\_ Class \_\_\_\_\_

### Communicating Ideas to an Audience

My idea →



Who is the audience?

Evidence that this audience will find *interesting*:

A large, empty rectangular box with a folded bottom-right corner, intended for writing evidence that the audience will find interesting.

Evidence that this audience will find *important*:

A large, empty rectangular box with a folded bottom-right corner, intended for writing evidence that the audience will find important.

Evidence that is *vital* to convince this audience to accept my idea:

A large, empty rectangular box with a folded bottom-right corner, intended for writing evidence that is vital to convince the audience.

The format and length that will be most effective for this audience: Why?

A large, empty rectangular box intended for writing about the format and length that will be most effective for the audience.

Special features I should include (e.g., sound, visuals, charts, oral presentation):

A large, empty rectangular box intended for writing about special features to include in the presentation.



# Information Fluency: Priority Benchmark Skills and Assessments

## Grade 12

STANDARDS AND INDICATORS	BENCHMARKS	ASSESSMENTS
STANDARD 1: USING INQUIRY TO BUILD UNDERSTANDING		
Inquiry Phase: Connect	12.1 Explores problems or questions for which there are multiple answers or no “best” answer.	12.1 Selecting Complex Research Problems or Questions
Inquiry Phase: Wonder		
Inquiry Phase: Investigate	12.2 Challenges ideas in text and makes notes of questions to pursue in additional sources.	12.2 Investigating Ideas 12.2 Learning Logs for Reflective Notetaking
Inquiry Phase: Construct	12.3 Builds a conceptual framework by synthesizing ideas gathered from multiple sources  12.4 Develops own point of view and supports with evidence	12.3 Concept Maps for Organizing Thinking 12.3 Concept Map  12.4 Supporting an Opinion
Inquiry Phase: Express	12.5 Evaluates own product and process throughout the work and uses self-assessment, teacher feedback, and peer feedback to make revisions when necessary	12.5 Student Research Checklist 12.5 Inquiry Process Questions
Inquiry Phase: Reflect		
STANDARD 2: PURSUING PERSONAL AND AESTHETIC GROWTH		
Reader/Viewer Response and Expression		
Personal Exploration		
Motivated, Independent Learning		
STANDARD 3: DEMONSTRATING SOCIAL RESPONSIBILITY		
Importance of Information to a Democratic Society		
Effective Social Interaction to Broaden Understanding		
Ethical Behavior in Use of Information		

Name \_\_\_\_\_ Class \_\_\_\_\_

## Selecting Complex Research Problems or Questions

Use the following process to identify a problem or question within a broad topic that:

- Has multiple answers, or
- Has no clear “right” answer.

### PROCESS FOR SELECTING A COMPLEX PROBLEM OR QUESTION TO RESEARCH

PROCESS	YOUR RESEARCH PROBLEM/QUESTION
1. What is your <b>broad topic area</b> ? [Ex: 1920's]	
2. Read background information to gain an overall understanding of your broad topic and <b>identify aspects that are controversial or complex</b> enough to merit different perspectives. [Prohibition, Economic Overextension, Organized Crime, Role of Women]	
3. Pick one controversial aspect that interests you. <b>Identify the different perspectives</b> on that issue. For each, list who holds the perspective and what that point of view is. [Prohibition. Law enforcement – maintaining a civil society; Temperance movement – save families; Organized crime – profit; Common citizens – Rights vs. Family values]	
4. <b>Predict the availability of information</b> on all the perspectives you listed. Will you be able to find credible, authoritative information for each perspective?	
5. Look carefully at the controversial issue you have identified. If it still seems to be a viable topic for research, then <b>identify the underlying problem or question</b> that you will address. [How did the intended and unintended consequences of Prohibition affect society in the 1920's?]	

Name\_\_\_\_\_ Class\_\_\_\_\_

### Investigating Ideas

<div data-bbox="285 354 638 577"><p><b>Ideas/things that I want to know more about:</b></p></div>		<div data-bbox="1008 354 1360 577"><p><b>What exactly I want to know (<u>questions</u> that I have) :</b></p></div>
<div data-bbox="219 598 683 932"></div>	<div data-bbox="722 688 901 779"></div>	<div data-bbox="963 577 1427 911"></div>
<div data-bbox="219 953 683 1287"></div>	<div data-bbox="722 1064 901 1155"></div>	<div data-bbox="963 953 1427 1287"></div>
<div data-bbox="219 1329 683 1663"></div>	<div data-bbox="722 1440 901 1530"></div>	<div data-bbox="943 1308 1408 1642"></div>

## Learning Logs for Reflective Notetaking

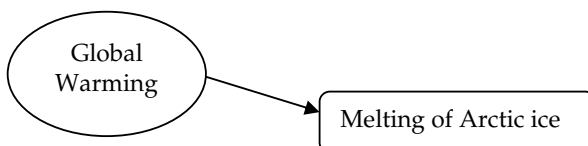
Notes	Reactions
<p>Learning logs can be used any time you are responsible for writing down information (from library sources, interviews, lecture notes).</p> <p>Write notes in your own words in the left column and react to those notes in the right column.</p> <p>The purpose of a learning log is to help you learn to challenge ideas in the text and interact mentally and emotionally with your notes. You will learn more while you are taking notes by confronting and questioning the ideas that you read or hear.</p>	<p>Reactions can include:</p> <ul style="list-style-type: none"> <li>• <b>Personal comments</b> or feelings about the information (<i>I think companies that dump toxic waste should be heavily fined</i>);</li> <li>• <b>Challenges to the text</b> (<i>This seems to be heavily biased toward the perspective of the industrial companies</i>);</li> <li>• <b>Questions of the text</b> (<i>Why doesn't the author provide believable evidence to back up his opinions</i>);</li> <li>• <b>Questions for further research</b> (<i>What are the laws on toxic-waste dumping?</i>);</li> <li>• <b>Notes about organization</b> (<i>Use this in intro</i>);</li> <li>• <b>Connections to previous knowledge</b> (<i>Toxic-waste dumping is worse than oil spills because it's intentional</i>).</li> </ul>

<b>Question:</b>	
<b>Notes</b>	<b>Reactions</b>

## Concept Maps for Organizing Thinking

A concept map is a visual representation of main ideas and relationships among those ideas. Concept mapping is a thinking strategy for finding patterns in the information you have gathered during your research and organizing your conclusions for presentation and sharing.

The concept map often looks like a spider web, with nodes of main ideas connected by arrows, lines, or symbols to show how the main ideas are related. For example, if you have found that global warming is causing the melting of Arctic ice, then a portion of your concept map might look like this:

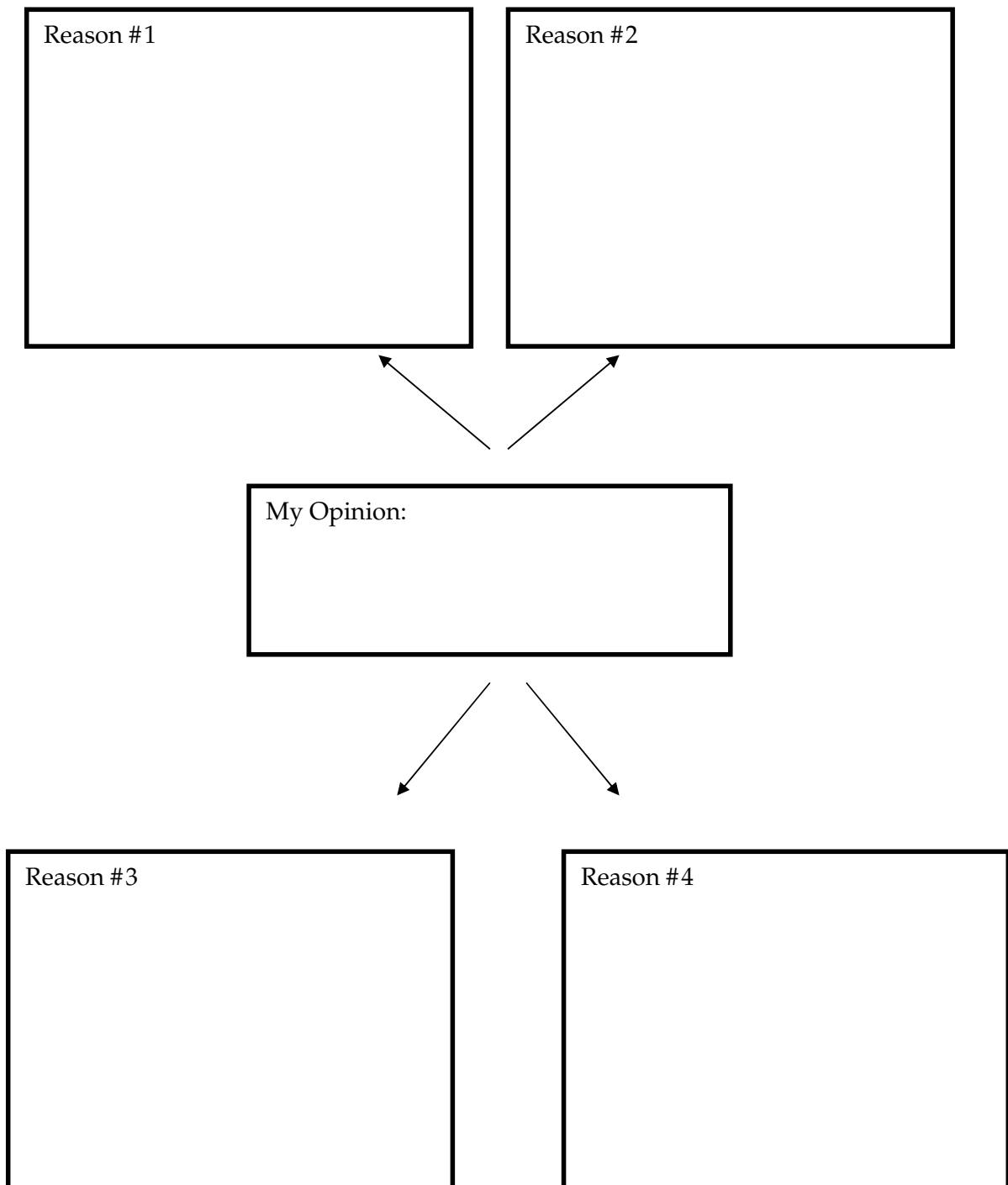


### **How to Create a Concept Map:**

1. Focus
  - Identify the main concept of your research topic or question.
2. Select
  - Select the key ideas that you discovered through your research.
3. Categorize and Cluster
  - Categorize the key ideas and group the categories that are related into larger ideas, or clusters. *[Ex: melting of Arctic ice, flooding, drought – clustered under Effects of Global Warming]*
4. Organize by Pattern / Draw Conclusions
  - Look for patterns that will show the relationships between your clusters of ideas. This is the most creative and thoughtful phase of your research because you will be able to draw conclusions based on the patterns you see. For example, does it make the most sense to organize the clusters in a chronological sequence? In a cause and effect pattern? In order of importance?
5. Arrange in a visual display
  - Place the main concept in a prominent place so that the supporting ideas can be connected to it (center, left side).
  - Arrange the clusters of ideas according to the pattern you have selected in order to show your conclusions (for example, a chronological sequence may be laid out left-to-right).
  - Connect the clusters with lines and arrows (and perhaps words) that show how the ideas are related.
  - Fill out the concept map with your supporting ideas/evidence.

Name\_\_\_\_\_ Class\_\_\_\_\_

**CONCEPT MAP**



Name\_\_\_\_\_ Class\_\_\_\_\_

**Supporting an Opinion**

OPINION:	
REASONS	EVIDENCE

Name \_\_\_\_\_ Class \_\_\_\_\_

### **Student Research Checklist**

☐

**I have used key words and concepts, as well as synonyms, to look for my topic of research.**

☐

**My idea is a good topic for research ... I will be able to find enough supportive evidence.**

☐

**I have used multiple sources for my research.**

☐

**I have researched more than one perspective/view on questions that can have more than one answer.**

☐

**I have developed my own, original point of view.**

☐

**I have organized the evidence and facts that support my ideas.**

☐

**I have shown my work to a classmate and asked for his or her opinion.**

☐

**I have shown my work to my teacher and asked for his or her opinion.**



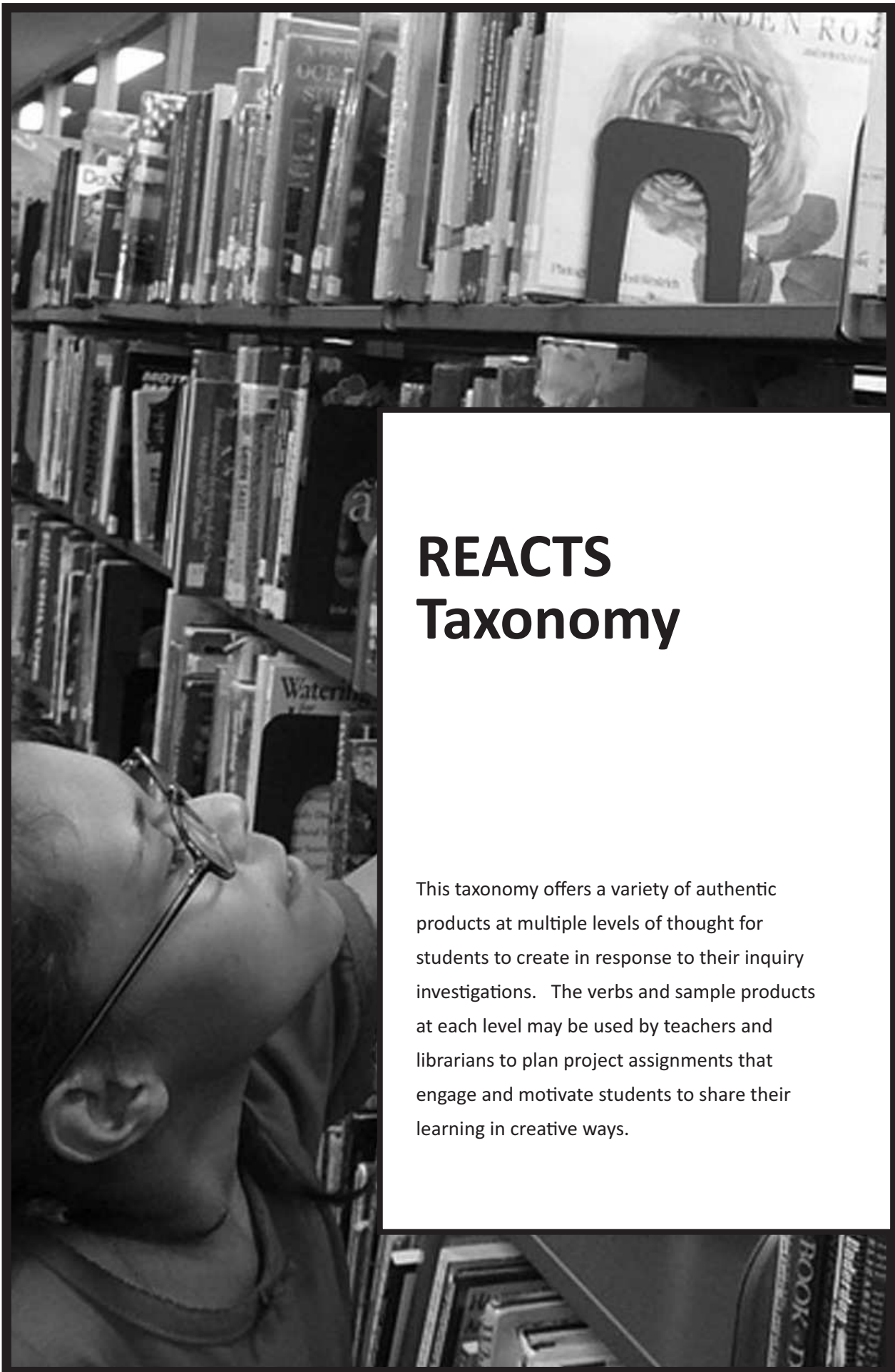
### **Inquiry Process Questions**

Students should reflect throughout their inquiry experience in order to self-regulate their progress through this recursive process (see the following excerpt from the New York City *Information Fluency Continuum*).

<b>INQUIRY PHASE: CONNECT</b>	
<i>At the beginning of the Connect Phase, a student may ask:</i>	
<ul style="list-style-type: none"> <li>➤ What interests me about this idea or topic?</li> <li>➤ What do I already know or think I know about this topic?</li> <li>➤ What background information would help me get an overview of my topic?</li> </ul>	
<i>Before moving to the Wonder Phase, a student may ask:</i>	
<ul style="list-style-type: none"> <li>➤ Do I know enough about the idea or topic to ask good questions?</li> <li>➤ Am I interested enough in the idea or topic to investigate it?</li> </ul>	
<b>INQUIRY PHASE: WONDER</b>	
<i>At the beginning of the Wonder Phase, a student may ask:</i>	
<ul style="list-style-type: none"> <li>➤ What intriguing questions do I have about the topic or idea?</li> <li>➤ Why am I doing this research?</li> <li>➤ What do I expect to find?</li> </ul>	
<i>Before moving to the Investigate Phase, a student may ask:</i>	
<ul style="list-style-type: none"> <li>➤ Can my question(s) be answered through investigation?</li> <li>➤ Will my question(s) lead me to answers that will fulfill my assignment or purpose for research?</li> </ul>	
<b>INQUIRY PHASE: INVESTIGATE</b>	
<i>At the beginning of the Investigate Phase, a student may ask:</i>	
<ul style="list-style-type: none"> <li>➤ What are all of the sources that might be used?</li> <li>➤ Which sources will be most useful and valuable?</li> <li>➤ How do I locate these sources?</li> <li>➤ How do I find the information within each source?</li> <li>➤ How do I evaluate the information that I find?</li> </ul>	
<i>Before moving to the Construct Phase, a student may ask:</i>	
<ul style="list-style-type: none"> <li>➤ Have I located sources with diverse perspectives?</li> <li>➤ Have I found enough accurate information to answer all my questions?</li> <li>➤ Have I discovered information gaps and filled them with more research?</li> <li>➤ Have I begun to identify relationships and patterns and thoughtfully reacted to</li> </ul>	

Name \_\_\_\_\_ Class \_\_\_\_\_

the information I found?
<b>INQUIRY PHASE: CONSTRUCT</b>
<p><i>At the beginning of the Construct Phase, a student may ask:</i></p> <ul style="list-style-type: none"> <li>➤ Have any main ideas emerged from the research?</li> <li>➤ Did I find enough evidence to form an opinion or support my thesis?</li> <li>➤ What organizational patterns or tools will help me make sense of my information?</li> </ul>
<p><i>Before moving to the Express Phase, a student may ask:</i></p> <ul style="list-style-type: none"> <li>➤ Have I drawn conclusions that are supported by the evidence?</li> <li>➤ Have I organized my conclusions and evidence to present them effectively?</li> </ul>
<b>INQUIRY PHASE: EXPRESS</b>
<p><i>At the beginning of the Express Phase, a student may ask:</i></p> <ul style="list-style-type: none"> <li>➤ What type of product or presentation will allow me to present my conclusions and evidence effectively to the intended audience?</li> <li>➤ What technology will help me create a product or presentation?</li> <li>➤ How will I get help to revise and edit my product?</li> </ul>
<p><i>Before moving to the Reflect Phase, a student may ask:</i></p> <ul style="list-style-type: none"> <li>➤ Have I organized the product/presentation to make my major points and present convincing evidence?</li> <li>➤ Does my product/presentation fulfill all the requirements of the assignment?</li> </ul>
<b>INQUIRY PHASE: REFLECT</b>
<p><i>At the beginning of the Reflect Phase, a student may ask:</i></p> <ul style="list-style-type: none"> <li>➤ Is my product/presentation as effective as I can make it?</li> <li>➤ How well did my inquiry process go?</li> <li>➤ How can I get feedback on my final product to use in my next inquiry project?</li> </ul>
<p><i>Before moving to another assignment or personal inquiry, a student may ask:</i></p> <ul style="list-style-type: none"> <li>➤ What new understandings did I develop about the topic or idea?</li> <li>➤ What did I learn about inquiry?</li> <li>➤ What new questions do I now want to answer about the topic or idea?</li> </ul>



# REACTS Taxonomy

This taxonomy offers a variety of authentic products at multiple levels of thought for students to create in response to their inquiry investigations. The verbs and sample products at each level may be used by teachers and librarians to plan project assignments that engage and motivate students to share their learning in creative ways.

## ***REACTS Taxonomy***

[Adapted from Stripling, Barbara K. and Judy M. Pitts, *Brainstorms and Blueprints: Teaching Library Research as a Thinking Process*. Englewood, CO: Libraries Unlimited, 1988.]

### **A Taxonomy of Research Reactions**

Recalling	Level 1
Explaining	Level 2
Analyzing	Level 3
Challenging	Level 4
Transforming	Level 5
Synthesizing	Level 6

### **RECALLING – LEVEL 1**

- Recalling and reporting the main facts discovered
- Making no attempt to analyze the information or reorganize it for comparison purposes

**Verbs:** arrange; cluster; define; find; identify; label; list; locate; match; name; recall; recount; repeat; reproduce; select; sort; state

#### **Example Assignments:**

- Select 5-10 accomplishments of the person you have researched. Produce a “Hall of Fame” (or “Hall of Shame”) poster with your biographee’s photocopied picture and list of accomplishments.
- After your class adopts a second- or third-grade class, write a letter to your assigned student recounting five interesting facts you discovered in your research.
- List five “Do’s and Don’ts” about a social issue that you have researched.
- Find facts about your subject for each category determined by the class. Contribute your facts to the “Fact File” on your class’s web page.
- Select pictures from discarded magazines, make photocopied pictures, or find appropriate pictures on the Web to produce a collage or picture essay that portrays your researched subject.
- Based on your research, state five questions a television reporter might ask if he/she were preparing a feature news story on your subject. Answer the questions. (Students could work in pairs; their interviews could be videotaped.)
- Arrange words important to your research in a crossword puzzle.
- Define key words about your research subject. Embed hot links in your Web page to your definitions in a class glossary page.

## EXPLAINING – LEVEL 2

- Recalling and restating, summarizing, or paraphrasing information
- Finding example, explaining events or actions
- Understanding the information well enough to be able to put it in a new context

**Verbs:** apply; cite; complete; convert; demonstrate; describe; document; dramatize; emulate; estimate; expand; explain; expound; express; generalize; give example; illustrate; imagine; paraphrase; portray; prepare; present; produce; propose; restate; review; search; show; solve; speculate; summarize; support; survey; translate; use

### Example Assignments:

- Dramatize a particularly exciting event associated with your research in an on-the-spot report.
- Express through dance or music your research subject's emotions related to an event in his/her life.
- Illustrate important features about your research by using clip art or a computer drawing program.
- Write and present a CNN News report about a particular event or person you researched.
- Keep a journal in which you present your reactions, thoughts, and feelings about your research.
- Show the events of your research on a map and explain the importance of each event.
- Complete each of the following statements based on your research: My research made me wish that. . . ; realize that. . . ; decide that. . . ; wonder about. . . ; see that. . . ; believe that. . . ; feel that. . . ; hope that. . .
- Cut out newspaper or magazine ads that would have interested an historical figure you have researched. Explain their importance to the historical figure.
- Express the interests and accomplishments of an historical figure you have researched through a fictional diary mounted on your class's Web page. Portray your figure's characteristics by linking to Web sites that would have been important to your person's life and work.
- Prepare a job application or resume for a person you have researched.
- Keep an explorer's log book to express your impressions as you investigate the sights and way of life in another country through research.
- Research the music of the area you are studying. Summarize your findings in an oral presentation containing recorded musical examples and visual aids.

## ANALYZING – LEVEL 3

- Breaking a subject into its component parts (causes, effects, problems, solutions)
- Comparing one part with another

**Verbs:** analyze; apply; arrange; associate; break down; categorize; change; characterize; classify; compare; compile; construct; contrast; correlate; diagram; differentiate; discover; discriminate; dissect; distinguish; divide; examine; experiment; extend; group; infer; interpret; manipulate; map; modify; organize; outline; plan; question; reconstruct; relate; represent; revise; rewrite; scrutinize; select; separate; sequence; sift; simplify; solve; transplant; uncover; utilize; verify

### Example Assignments:

- Create a timeline for the events which led up to the situation you researched. Correlate social, political, religious, educational, technological events.
- Transplant an event or famous person (e.g., a philosopher, leader, doctor, artist, musician, scientist, author) from one time period, country, or ecological system to another time or place. Explain the changes that would occur in that person's life, work, or artistic style.
- Construct a carefully organized Web page to examine a social issue.
- Characterize your researched historical person in an obituary which makes clear his/her role in the conflicts of the day.
- Compare your lifestyle and neighborhood to those of people living in the time you have researched.
- Write a letter to the editor scrutinizing a local issue. Support your opinions with specific details from your research.
- Rewrite an historical event from two different points of view.
- Write a recipe for an historical event by researching, analyzing to pick out the main ingredients, and sequencing them in order with mixing instructions.
- Organize and create a travel brochure (on paper or on the Web) to attract visitors to the place or time period you have researched. Include all information that one would need to know plus fascinating details that would draw visitors.
- Use a graphic organizer to outline the main ideas of your subject visually, showing relationships between ideas and supporting points.
- Analyze socially and politically motivated works of art related to the historical period you are researching.

## CHALLENGING – LEVEL 4

- Making critical judgments about subject based on internal or external standards
- (Standards may be student's own, or teacher or class may decide criteria. "I didn't like it" or "I don't believe it" are not enough)

**Verbs:** appraise; argue; assess; compare; criticize; debate; defend; determine; discriminate; evaluate; grade; investigate; judge; justify; modify; prioritize; rank; rate, refute; review; support; value; weigh

### Example Assignments:

- Produce a critical review (of a book, movie, dance performance, or play) which can be printed in a local paper or aired on local television or radio stations.
- Write a scene for and act as an attorney and argue to punish or acquit an historical character or a country for a crime or misdeed.
- Determine as a movie producer whether or not to make a film of an actual historical event, with justification for the decision.
- Defend your judgment that a research subject (if it is an invention, machine, or some other item or document) should be placed in a time capsule to be dug up in 100 years.
- Judge the merits of a researched subject by conducting a mock trial.
- Debate the issues of a controversial research topic with a classmate who researched the same topic. Alternatively, assume the personas of two artists, musicians, choreographers, or playwrights and debate their different points of view or styles.
- Evaluate the information available in print and electronic format on your topic, based on clear evaluation criteria. Compile an annotated bibliography of valuable sites and sources.
- Investigate a societal problem. Prepare a report card on the issue that assigns a grade for each proposed or attempted solution (look at the cost, feasibility, probable success, ease of implementation). Justify your grades.
- Evaluate the accuracy of an historical or teen-problem novel by comparing the "factual" information in the novel with the facts you discover through research. Refute the nonfactual information in a letter from "Dear Abby."
- Create an editorial cartoon about your researched subject that makes clear your judgment about the subject.
- Research dances and music of the period and compare to contemporary examples.
- Defend censorship in music in an editorial from a parent's viewpoint.
- Defend freedom from censorship in music in an editorial from an adolescent's viewpoint.



## TRANSFORMING – LEVEL 5

- Bringing together more than one piece of information, forming own conclusion, and presenting that conclusion in a creative new format

**Verbs:** blend; build; combine; compile; compose; conclude; construct; convince; create; decide; design; develop; dramatize; elaborate; express; forecast; formulate; generate; imagine; modify; persuade; plan; predict; pretend; produce; propose; revise; speculate; structure

### Example Assignments:

- Design and produce a television commercial or a whole advertising campaign that presents your research results to the class.
- Create a board game that incorporates the major conclusions you reached about your researched subject.
- Write a poem or short story that expresses your new knowledge or insight.
- Dramatize a famous historical event. The dramatization should make clear your interpretation of the event.
- Predict your reaction to your research subject as a resident of the future.
- Compose a speech that an historical person might deliver about a present-day national issue. Compose a speech that a current public person might deliver about an historical issue.
- Compile a series of self-portraits your research subject would have painted demonstrating his/her growth and development.
- Become a person in the historical era you have researched; elaborate from that perspective about a specific event, problem, invention, scientific theory, or political situation in a letter to someone.
- Predict what your researched person would take on a trip. Design the itinerary. Pack that person's suitcase and present each item to the class with an explanation of significance.
- Research a specific event, person, or aspect of the culture of an historical or modern era. Write and produce a segment for a morning news show on your topic.
- Pretend you are living in a particular place or historical era. Research a subject that is important to that time or place. Develop an article about that subject as though you were living there, to be added to a class newspaper or magazine.
- Design a hypermedia program or a Web page about your researched subject that allows others to follow several different paths through your information.



## SYNTHESIZING – LEVEL 6

- Creating an entirely original product based on a new concept or theory

**Verbs:** build a model program; create; design; develop; devise; generate; hypothesize; invent; propose; theorize

### **Example Assignments:**

- Develop a model program to address a social problem that you have researched.
- Invent a new animal; explain its effect on other animals and on the environment.
- Create a new country and hypothesize about the change in the balance of power in the world.
- Design a new building, machine, process, experiment based on theories developed from your research.
- Develop proposed legislation to address national, state, or local issues.
- Devise an ethical code for present-day researchers or scientists which could regulate their activities in a particular field.
- Develop a community project that addresses an issue of local concern.
- Design and carry out a science project that builds on the previous knowledge that you have discovered through research and tests a new concept or theory.
- Build an architectural model of a community that offers/addresses a solution to a social problem you have been researching.
- Invent a new way of moving that addresses a social conflict you have researched, and devise a group dance in this style. Generate an inventory of the movements and the rules governing dancers' interactions. Hypothesize how people would be affected if this kind of dance became popular.
- Design and create a school-wide recycling program which will include the data collection of recyclable and non-recyclable waste.